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ROCKS AND MINERALS

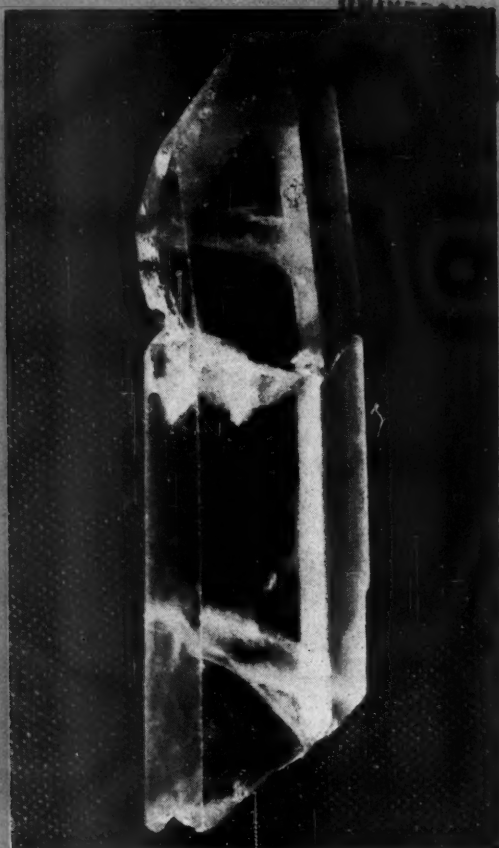
Mineralogy

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(See page 147)

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March-April, 1959
Whole Number 269

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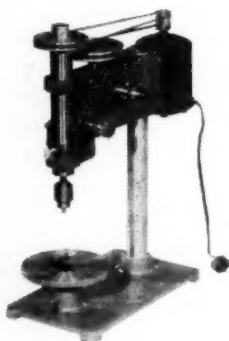
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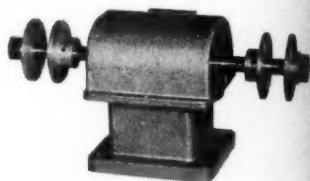
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ROCKS & MINERALS

OFFICIAL JOURNAL

PETER ZODAC, Editor and Publisher
America's Oldest and Most Versatile
Magazine for the Mineralogist, Geol-
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CHIPS FROM THE QUARRY

COMING EVENTS

April 1-4, 1959—National Speleological Society 16th Annual Convention, Springfield, Mo. Dr. Oscar Hawksley, Convention Chairman, Central Missouri State College, Warrensburg, Mo.

April 24, 25, 26, 1959—Rocky Mountain Federation of Mineralogical Societies, Annual Convention and Show. Host: Wichita Gem and Mineral Society, Walter Brodereson, General Chairman, 657 McLean Blvd., N.W., Wichita 12, Kans.

April 25-26, 1959—22nd Annual Mineral and Lapidary Show of the Southwest Mineralogists, Inc., to be held in the Palestine Masonic Temple, 41st Place and Figueroa St., Los Angeles, Calif. Welborn Boyd, Publicity Director, 1017 S. Myrtle Ave., Apt. 3, Inglewood, Calif.

May 9-10, 1959—Santa Barbara Mineral and Gem Society Annual Swap Day, to be held at Paradise Park, Santa Ynez Recreation Area, approximately 12½ miles from Santa Barbara. Kenneth M. Castro, General Chairman, Box 815, Santa Barbara, Calif.

June 18-21, 1959—Mid-West Federation of Mineralogical and Geological Societies, Clark County Fair Grounds, Springfield, Ohio (Miami Valley Mineral and Gem Club, Inc., of Fairborn, Ohio—host). Howard Core, Publicity, Box 442, West Liberty, Ohio.

June 19-24, 1959—Wyoming Mineral and Gem Society Show and Convention. Host—Riverton Mineral and Gem Society, Fremont County Fair Building, Riverton, Wyo., Mrs. Adam Wensky, Corr. Secretary, 1017 E. Loebe, Riverton, Wyo.

June 26, 27, 28, 1959—20th Annual Convention and Gem & Mineral Fiesta of the California Federation of Mineralogical Societies, Inc. Host—Gem and Mineral Society of San Mateo County, Inc. Fiesta Fairgrounds, San Mateo, Calif. Frank J. Brady, Publicity Chairman, 982 Blandford Blvd., Redwood City, Calif.

July 16, 17, 18, 1959—Eastern Federation of Mineralogical and Lapidary Societies Convention. Sheraton Plaza Hotel, Boston, Mass. Mrs. Grace G. Dearborn,

R&M will have booth at Wichita Convention

ROCKS AND MINERALS will have a booth at the Rocky Mountain Federation Convention in Wichita, Kans., April 24-26, 1959. The Editor will be present and would be very happy to greet any friends who may be in attendance.

Youngest active twins in the country

Editor R&M:

Here is an interesting item that you might want to publish. Our club, the Fulton County Mineral Club, was formed 2 years ago and it all came about through R&M. To date we have about 25 members and others from various parts of the State and the U.S. Our official journal is R&M which is subscribed for by over 60% of the members but it is read by almost 100%—some families have 2 or 3 members in the club but only one subscribes.

I would like to state that my son, Anthony Ralph, is probably one of the youngest active mineral collectors in the country. Though he is only 10 years old he has been collecting since he was 6, and has his own collection. His twin sister, Mary Jean, is also an active collector and has a collection of her own. They are both active members of the Fulton County Mineral Club.

Is it possible to have a column on field trips, in which would appear names and addresses of collectors whom we could contact for information on trips in various parts of the country?

Lewis F. Valachovic
110 Burton Street
Johnstown, N.Y.

General Chairman, 146 Lincoln Street, Newton Highlands 61, Mass.

Sept. 5, 6, 7, 1959—National Gem Fair, Portland, Ore. Host—Oregon Agate and Mineral Society, Portland, Ore. Albert J. Keen, Dealer Chairman, 2715 N.E. 41st Ave., Portland 12, Ore.

Sept. 26-27, 1959—Nebraska Mineral and Gem Club, Inc., Annual Show to be held in the Civic Auditorium, 17th & Capitol Ave., Omaha, Nebr. Celia M. Vokoun, Secy.-Treas., 1521 So. 25th St., Omaha 5, Nebr.

Permian Microfossils of Northwestern Washington

By WILBERT R. DANNER

Northwestern Washington is not noted for its Paleozoic fossils. In fact, organic remains of this geologic era are quite rare. There are, however, a few places where some interesting specimens can be found. They were first reported in 1910 when a geology student from the University of Washington, Birger Norum, discovered fossils in a limestone quarry northeast of the town of Granite Falls, Snohomish County. The specimens were fusulinids, tiny shell-building creatures that belonged to the phylum Protozoa (one-celled animals). The fusulinids first appeared in the geologic record as fossils in the very latest Mississippian and early Pennsylvanian periods about 260 million years ago. They are thought to have lived on the sea bottom, off shore, in shallow open water. They evolved into many different forms and prospered until near the end of the Permian (about 200 million years ago) when apparently all of them became extinct. During the time they lived they had spread rapidly all around the world. Billions of them are preserved in rocks of the upper Paleozoic era, and are of great importance to geologists as index fossils, that is, they are very useful in establishing the age of the rocks in which they are found. Oil geologists find them important markers in the rock formations of the American Southwest.

Permian Sea Covered Western North America

During the early part of the Permian period of time the sea covered a large portion of the western United States, Canada, Alaska, and Mexico. Fusulinids lived in this sea over all the area where the environment was suitable. In the early Permian those found in British Columbia, Washington, Oregon and northern California were more similar to

fusulinids found in Europe and Asia than those of the rest of North America and of South America. As Permian time progressed the submerged areas of North America became smaller. The fusulinids then seemed to develop into two even more distinctive groups. One group inhabited the area of Texas, New Mexico and Mexico. The other group lived in British Columbia, Washington and Oregon. The Southwestern American fusulinids were different from most of those found in Europe and Asia but the Pacific Northwestern forms were very similar.

The Tethys Sea of the Permian

The European and Asiatic fusulinids of the late Permian are thought to have lived in a narrow east-west sea called by geologists the Tethys sea. It extended from Tunis in North Africa to French Indo-China and Japan. It had extensions south into Australia and New Zealand. This sea also reached western North America and extended into British Columbia, Washington and Oregon. It apparently remained in the Pacific Northwest longer than the Permian seas in any other part of the United States as far as is known. The Upper Permian rocks of the Southwest contain great quantities of salt and gypsum indicating that there the sea connections with the ocean were blocked and the waters evaporated away.

Thus these tiny fossils in Washington are closely related to those of Asia, the South Pacific and Mediterranean area. This difference from the typical American types was first noted in Washington by geologist Roy Anderson in a paper published in 1941. Another report with similar conclusions was published in 1942 by geologists M. L. Thompson and H. E. Wheeler. The specimens these men studied all came from the quarry that Norum had described back in 1910.

The Canyon Creek Quarry

The quarry that Norum had described in 1910 is now known as the Canyon Creek limestone quarry. It is located on the south side of the Granite Falls-Silverton highway about 3½ miles northeast of the town of Granite Falls near Canyon Creek lodge. There are really two quarries here. One extends south from the highway into a small hill and the second, a higher one, is located on the south side of this same hill. This latter quarry seems to have been abandoned but the one on the highway is worked from time to time. Limestone from these quarries was used in paper mills and has been widely used as road surfacing material for logging roads in the surrounding area.

The fusulinids are found in the southern quarry apparently only in its northeast corner near where a dike of volcanic rock intrudes the limestone. Three different genera have been found. They include *Yebeina cascadenis*, *Schwagerina andersoni* and *Codonofusiella duffelli*. Some of the limestone is composed almost entirely of their remains. The *Yabeina* seems to be the most abundant. Some of these specimens are ½ inch in diameter which is quite large for this type of animal.

While the writer has not found any fossils in the northern quarry, fragments of limestone apparently obtained from this quarry and used to surface nearby logging roads, sometime contain fusulinids.

The Granite Falls Quarry

The Granite Falls quarry is located about a mile southeast of the Canyon Creek quarry on the south side of the South Fork of the Stillaguamish River. The limestone crops out above the gorge of the river a few hundred feet south of the old Monte Cristo railroad grade. The wayside mine road goes to within two miles of the deposit. This quarry has been abandoned for many years and is so heavily overgrown with vegetation that it is difficult to locate. Specimens

of *Yabeina* and *Schwagerina* were found in limestone on the quarry dump. The quarry floor is usually flooded.

Morcrop Limestone Quarries

In 1948 while examining the first quarry of the Morcrop Limestone Company east of Arlington, Snohomish County, the writer found fusulinids to be abundant in some parts of the limestone exposed there. At least two types were easily visible on weathered surfaces. These were subsequently identified by Professor M. L. Thompson of the University of Kansas as *Noeschwagerina morcropensis* and *Verbeekina americana*, types common in the Asiatic Tethys sea. Thin sections of the limestone revealed *Neoschwagerina brevis*, *Schwagerina*, *Pseudodoliolina oliviformis*, and *Boultonia cascadenis*. The writer found another protozoa, *Pachyphloia* and there are others that are as yet unidentified. Small crinoid columns and gastropods, imperfectly preserved, could be seen on some weathered surfaces of the limestone.

In the years since this discovery most of the limestone in the first quarry has been removed and the fossils with it. This is unfortunate for paleontologists as this quarry was the only locality where *Verbeekina* had been found in the United States. However, other quarries are now being developed on limestone outcrops just to the south and *Verbeekina* has been found in one of these. Only one other occurrence is known in the western hemisphere and that is near Trembleur Lake in central British Columbia, reported by Dr. Jack Armstrong of the Canadian Geological Survey in 1942.

About one mile southwest of the first Morcrop quarry and on the city of Seattle Skagit Power Line right-of-way is a small limestone outcrop that was found to contain *Neoschwagerina brevis* and *Pseudodoliolina oliviformis*. Only a few pieces of limestone of several collected here proved to be fossiliferous.

Twin Lakes Area

Permian limestones crop out on both sides of the Twin Lakes between the Morcrop quarries on the north and the Canyon Creek quarry on the south. Only one outcrop on the west side of the South Twin Lake has been found to contain fusulinids. Many of the other limestones are quite crystalline and if they contained fossils these have been destroyed by the crystallization. *Schwagerina carus*, *Pseudodoliolina* and some small gastropods were found at this locality. Although abundant in some of the limestone the fossils are very difficult to see either on the weathered or unweathered surfaces. Southeast of South Twin Lake a piece of float lime-

stone containing many poorly preserved crinoid columnals was found in a stream bed draining a western spur of Blue Mountain. Most of this area is now included within the boundary of the Jim Creek Naval Radio Station.

Palmer Mountain, King County

In the summer of 1949 fusulinids were found in a float boulder of limestone on the north side of Palmer Mountain near the community of Grotto in King County. These were identified as *Neoschwagerina* and *Schwagerina*. Small limestone outcrops are common in this area but most are quite crystalline and any organic remains they may have contained have been mostly destroyed.



A negative photograph of a thin section of limestone from the Morcrop quarry near Arlington, Snohomish County, Washington. Permian fusulinids are: A—*Verbeskina*, B—*Neoschwagerina*.

Crinoid columnals were found in the Roche Harbor limestone quarry of the Northwestern Portland Cement Company on the northwest side of Palmer Mountain.

Black Mountain, Whatcom County

In July 1955 a limestone containing fusulinids in great abundance was discovered in section 4 on the northern end of Black Mountain, Whatcom County, about 1½ miles south of the Canadian border. These were tentatively identified as *Schwagerina* and *Pseudofusilinella* by Dr. John W. Skinner of the Humble Oil Company. A few bryozoa occur in the same limestone with the fusulinids. Nearby are other limestone beds one of which contains corals, brachiopods, and fragments of large crinoid stems. The limestones of this area are among the most fossiliferous found in western Washington. From the preliminary identification of the fusulinids

this limestone appears to be of early Permian age and is older than the other fusulinid limestones of western Washington.

San Juan Islands, San Juan County

Fusulinids are known from three localities on the San Juan Islands. The first of these was reported in 1927 by Dr. Roy McLellan in his "Geology of the San Juan Islands". The fossils were found in limestone lenses on the northeast side of Orcas Island. No definite identification was made nor were they described.

In 1948 numerous specimens of *Neoschwagerina* were collected at the extreme east and west ends of the Cowell quarries northeast of the lighthouse on the north side of Deadman Bay western San Juan Island. Similar fossils had been reported from this locality by geologist W. H. Mathews of the British Columbia Department of Mines in 1947 but his



Weathered surface of a limestone outcrop. Permian fusulinid *Neoschwagerina* showing on weathered surface.

report was unknown to the writer at the time. The protozoa *Pachyphloia* also occurs here.

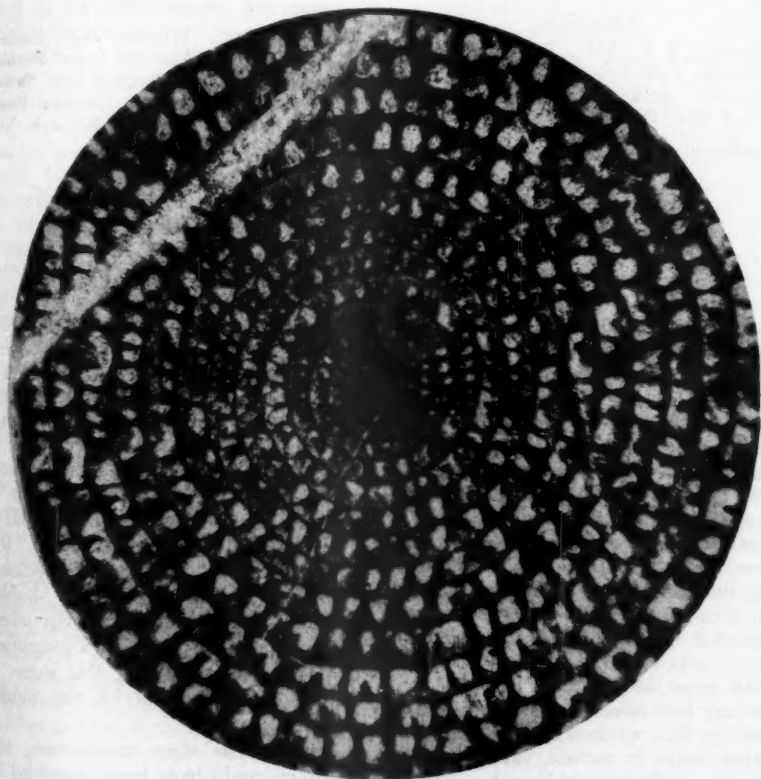
On the south side of Mitchell Bay on the west coast of San Juan Island is a small abandoned limestone quarry. Southwest of it along the beach cliffs are numerous small pods of limestone in volcanic rock and ribbon chert. In the summer of 1955 one of these pods was found to contain numerous specimens of *Schwagerina* quite similar to the species found at South Twin Lake.

Collecting and Studying

These fossils are not easy to recognize in a hand specimen. A hand lens or magnifying glass is necessary to examine

the limestone surfaces for them. Weathered surfaces, particularly those that have weathered under alluvium, seem to be the best places to look.

The specimens are best seen and studied by making a thin section of the limestone. To make a thin section a piece of the rock has to be cut into a thin slab which is then mounted with a polished face down on a glass slide. Canada Balsam and Lakeside #70 transparent cement can be used to cement the polished face to the glass. The other side of the rock is then ground down until the fossil structure becomes clearly and sharply visible by transmitted light. Usually a section must be ground down to at least 1/20 of a millimeter in thick-



Thin section of the Permian fusulinid *Neoschwagerina*. Diameter of specimen is about 5 millimeters. A calcite veinlet shows up as the white band across corner of section.

ness. When the proper thickness is obtained a cover glass is cemented over the section. A detailed description of the procedure for making thin sections as applied to igneous and metamorphic rocks is given in the paper by Lang and Smedes (1951) listed in the bibliography. Usually limestone sections containing fossil structures are not made as thin as those of other rocks.

While these fossils are not the spectacular kind exhibited in the great museums and displayed in the place of honor in the cabinets of collectors, they are of great importance in the interpretation of the geologic history of this area and give a kind of oriental flavor to the geology of northwestern Washington.

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RE-EXAMINE THOSE SPECIMENS

By ZELMA WRIGHT

3105 Dundalk Ave., Baltimore 22, Md.

Several years ago, this writer was fortunate enough to acquire a good amount of large quartz crystal pieces which had been cut on one or more sides, with some excellent faces remaining. Among this material were some good pieces of gem quartz, smoky quartz, specimen pieces and odd pieces with inclusions, phantoms and feathers.

Many pieces showed spectrum colors deep inside the stone and it was with this that this writer began toying with the idea of cutting into the stone and removing the flashing area in the form of cab gem stones.

All went better than expected and the very first stone produced a beautiful flashing fire, so it was then that the search began in earnest, each specimen being carefully examined and any flashing fired marked off for removal.

Upon examination of one particular

specimen, an approximate 3" x 3" piece of clear quartz crystal, which was very rough but showed a small fire section on one side, a small circle approximately 1/16" in diameter showed up through a conical fracture. Excitement began to mount. An examination was made with a low magnification and movement of the specimen. "It was a bubble and it did move!" You can't imagine, this writer's first liquid inclusion specimen, and a good one. The 1/16" bubble moved 21/32" through the cavity which was very clear, using the 5X magnification. The fire section of this stone, of course, was ruled out by the bubble section.

Without the close examination, this specimen could have been destroyed by cutting. So look! What thrill awaits you when you Re-Examine your specimens.

COLORADO, 1958

By J. KENNETH FISHER

147 Fairlamb Ave., Havertown, Pa.

The Fisher's, (Mr. and Mrs. Kenneth W., son and daughter-in-law, and Mr. and Mrs. J.K.) were very fortunate in being able to spend some time again in cool Colorado, nineteen days in July. Our trip went from home (Havertown, Pa.) to Lawton, Oklahoma, to Buena Vista, Colo., three days, 2100 miles. This was all travel, no minerals.

First day, we went up Chalk Canyon, between Mts. Princeton and Antero. We passed St. Elmo and the site of the town of Hancock and stopped to visit the Stonewall Mine, (El. 11,400). We went back in the tunnel some 400 feet. A shot had been set off by the owners and we were allowed to collect specimens, (a rich argentiferous galena, massive). The Stonewall has a notable record as a silver producer. John Ahart was the watchman at the Stonewall. The "road" became too rough for a regular car and we turned back. On inquiry in St. Elmo, we heard that a jeep road extended to the "Texans" mine up on Antero, condition and details about the road very indefinite. Also that Mary Belle Stark was in the hospital, that her brother was dead and the entire possessions of the Stark's were being sold at auction early in August. To the uninitiated, this meant the official close of an epoch: the Stark's *were* St. Elmo, now they were gone. We could not get into the Stark store, a living museum of western U.S. culture, circa. 1900. St. Elmo (Colo.) is no longer a post office.

I had been to Buena Vista three or four times, but had never been to the mineralized area near the summit of Antero. I was determined to get up there on this trip, even if I had to be carried up. So next day we hired a jeep (going price \$15 a day) four-wheel drive type, and headed for Antero. The whole venture was in the nature of a trip into the unknown; we didn't know if the road was open, if we would be allowed on it, if we would be allowed to collect

if we did get up and a lot of other maybes, buts, and we weren't sures. As things turned out, the day was a thriller-diller, a good day's mineralizing in all ways. Kenny drove. His Army training included a course in "Jeepology." We needed all the gears; much of the time we were in low-low-low. The road was one way, all the seven miles of it. Passing was a breath-taking feat anywhere. Time was about one hour and fifteen minutes each way. The road was in two sections, first the part from Chalk Canyon to the head of Baldwin Gulch, three miles and then the ascent of the mountain itself. Just beyond the head of the gulch, we came to a section of the road that we could not climb, even with our four-wheel drive in low-low-low. We "detoured" thru a patch of small timber (we were almost at timberline). The ascent of Antero itself was by a series of switchbacks. Both sections of the "road" could be called dizzy, breath-taking, crazy or any other strong adjectives that one would choose to use. This was my first jeep-ride on a mountain road and I freely admit I was ill at ease (that's polite language for, I was scared). Slopes above were covered by big boulders—the drop off on the other side was, or at least looked to be, practically straight down. We finally made the meadow between Mts. Antero and White. This area was comparatively flat and it was above the snow line. Sharon, Kenny's wife, made snowballs here and we took pictures. From the meadow to the mining area was the piece-de-resistance of "road" work. This stretch was extra narrow—turns too sharp even for a jeep—we backed our way up alternate switches. That kind of riding is really stimulating, not recommended for the timid, however. This is not to say that I am especially brave; I was trapped into it and could not turn back. We were cordially received at the mine. There was another party at the mine,

they had jeeped up also. They were mountain climbers and were going to ascend the summit, some 500 or 600 feet above us. We were now at about 13,600 feet. As we did not have time to do both—climb to the summit and collect minerals, we decided to collect minerals. We, with permission, went to the "south" opening. The "mine" was really a quarry, and, by eastern standards, a small one, perhaps a hundred feet across and not over thirty feet deep at its deepest. These figures refer to the "south" opening: the entire mining area was perhaps 500 by 200 feet. The "north" opening was a narrow cut into the pegmatite and about as deep as the south opening. The rock was a white pegmatite, practically without cleavage or crystallization, notably different, in this respect, from the New England pegmatites. It was not difficult to find Mt. Antero aquamarine. The quarry floor was spangled with little pieces having the characteristic light blue color. Inspection of the quarry face showed a decided vein coming down the approximate center. Finding the vein was easy. We soon found, however, that getting a good mineral specimen was a horse of a decidedly different color. Antero *gem* aqua is solid and of some strength; all other aqua is friable and very crumbly. With hammering necessary to loosen material from the vein, promising specimens became piles of little pieces, joining the many other little pieces littering the quarry floor. We did secure a series of specimens, non-gem aqua and smoky quartz, mostly. In size most xls were small, none were of the spine-tingling size so smoothly described by Dr. Montgomery in his R&M article, Dec. 1938. We packed our things as well as we could to preserve them during the long jolting ride down the mountain.

Our whole vacation was a series of compromises and the one I had to make at this juncture was a particularly agonizing one. Ken and Sharon wanted to come down, after we had been there some two hours (it seemed two minutes) and I agreed, altho what I really wanted to do was to lie down there

and sleep beside that aquamarine vein. That really would have been something. It was snowing at the time, cold and very windy. As we were ready to leave we saw the party with whom we had talked at the summit and we photographed them.

We came down. The descent was every bit as thrilling as the ascent. We went on up Chalk Canyon, beyond Hancock, and managed to get stuck in a boggy area. We almost had to spend the night there, but, by a series of complex rescue maneuvers, at a cost of \$28, we got back to B.V. at midnight.

Saturday, we went to Salida and visited the plant of the Mt. Antero Reduction Company where the Mt. Antero ores are treated. The plant was small in size, with Mr. Moss chemist in charge. Here we met Mr. Earl Stagner, the man in charge of the operations up on the mountain. Mr. S. had a quantity of gem aqua, from the Antero ores and also a number of phenacite xls. We made an arrangement, satisfactory to both, so that I acquired some of both minerals. We went to the ore storage area and Mr. S. showed me specimens containing numerous small xls of phenacite, loosely held in a mass of mica, heavily iron-stained by decaying pyrite. I was allowed to look over the pile of ore that had been brought down from Antero. There was nothing mineralogically outstanding, but I secured a clear idea of what was being mined.

Mr. Moss had a specimen on his desk, about 2" square and 1" thick, that was solid chrysoberyl. It had been brought in by an operator in the Lake George area, as a possible ore for the company's use. It was typical chrysoberyl color and seemed a mass of frozen, imperfectly formed xls. It was the largest piece of solid chrysoberyl I had ever seen. I tried to get it, or an equivalent. I am still trying.

We went to Climax and received the usual courteous treatment, by both the Public Relations Office and the Geology Dept. We talked and exchanged with Bob Navias, the Company's Assistant Geologist. He stated that Gilman is pro-

ducing "sheet" pyrite in considerable quantity and in excellent quality. Back in Leadville, I was told that the New Jersey Zinc Co., operators of the mine at Gilman, operate in Colorado on the same Dark Age principles that they did at Franklin, N.J., and practically force their employees into a kind of bootlegging of mineral specimens, if any mineral specimens from New Jersey Zinc Company mines are ever to see the light of day. However, by one device or another, I secured some of the pyrites. There are no mines whatever working in the Leadville area, or were not when I was there in July.

Next was Breckenridge. The Wellington operation of Horn and Berger was shut down. The only activity in French Gulch was Bill Head's mine. Bill has given up placering, at least temporarily and, by himself, has built a shaft frame over a seam. This is a legal, full size, double compartment shaft, with 6" notched logs, all the work done by one man and entirely by hand. He had located ore, "worth a million, ten more feet down." We brought home some typical ore from Bill's digging. Mr. Bradley, town patriarch, returned home from a hospital the day we were in Breckenridge. We visited for a very short time. On the way back we drove up Buckskin Gulch (Alma) to the abandoned Sweet Home Mine. We secured some pieces with the rhodochrosite, but the material was a very, very faint pink. We also secured a notable dent in the car's tin when we ran over a loose stone that wedged itself underneath somehow.

We visited and exchanged with Otto Ellarton, Salida, Dutch Moyer, the Mayor of Ute Gulch and with Frank Strahs, in Buena Vista. In the swapping, I secured excellent limonite pseudo pyrite, blue barite from over at Hartsel, excellent feldspar xls from up Clear Creek, some columbite, fluorite and roscelite. I made suitable exchanges in all cases and was thankful.

One day was given to Lake George and Cripple Creek. We bought in Summer's store in Lake George. He had things we wanted and at a very suit-

able price. There wasn't time to go hunting in the comparatively large Crystal Peak area. At the Carlton Gold Mill, between Cripple and Victor, we looked at ore in the bins and went thru the mill. The store, mineralogically, has gone to pot. In previous years when we were there excellent ore specimens were on sale, but this year there wasn't anything worth carrying home. We went on to Victor. We asked a group of men talking on the sidewalk, if they knew of anyone in Victor who might have specimens for sale or trade. One opined, "used to be you could get wagonloads of good things, but no more." It looked as if I had drawn another blank, but just then another man joined the group and he "thought" he had a good piece of ore down at the house. Furthermore, he said he would go and get it. "It" turned out to be an excellent piece of calaverite ore. He gave it to me, wouldn't take any pay for it, or anything else I could offer. Finally, I said that if I wrote up the story of my trip, I'd say that Bill Moyle had given me the piece and that I would send him a copy of the story, if it was printed. We left it at that. We bought some Cripple Creek ores in a mineral store on Bennett Street, the only mineral store in Cripple Creek.

Bob Navias had told me that there were plenty of feldspar xls at Crested Butte, quote, "300-400 yards from where you park beside a lake," unquote. What he neglected to say was, that it was 300-400 yards *straight up*. I found that out after a jeep trip over Tincup Pass, down thru Taylor Park and up the Valley to the Butte. Bob's directions about the Crested Butte locality were off in another particular; he said that the xls were above a *boy's* camp along a lake. The camp was there all right and the lake too; and the camp, only thing was that it was a *girl's* camp and we were in the middle of it before we really knew it. After some huffy words about, "We weren't allowed, etc., etc.," I fled in the general direction of the Butte. It was a long, difficult climb. My lungs just couldn't supply my legs with enough

energy. The xls, were there, plentifully, were of good size and of at least fair quality.

We got in a couple of hours at Ruby Mountain. Last year, the sway-backed bridge over the river was washed out. This year it had been replaced by a fine new steel bridge. The owner of Ruby Mountain was carrying on a contest with the County Commissioners when we first got to Buena this year and we did not get a chance to get to the Mountain until the last day of our stay. We heard that an agreement had been reached Wednesday night and when we drove in Thursday morning, the double padlock was off the gate and we drove all the way to the foot of the Mountain. We were alone, the news of the re-opening of the road in had not been circulated. As far as we knew, we were the first people to *drive* to Ruby Mtn. since 1956. We found the usual, with more topaz than ordinarily.

I was so captivated by that first trip up Antero, that we hired the jeep again and went up a second time. Earl Stagner was on the mountain, supervising the delivery of a front loading device which was to replace a bull dozer that had unfortunately gone over the mountain side two weeks before. The operator, fortunately, had leaped to safety, but a red spot high on the slope indicated the resting place of the bull dozer. We walked over the entire mine area, a little larger than a football field then decided to work more on the same section we worked the first day up. This meant that all our "mining", for the entire 6½ hours that we worked was done in an area not much larger than an average living room. As indicated in the previously mentioned Montgomery-Over article, the available mineral area on Antero is three-quarters of a mile square, so the space we worked was but a minute fraction of the available amount. Mr. Stagner came down while we were working and was most cordial. He showed us the particular place from which had come the phenacites which he had showed us at the Reduction Company's plant. Mr. Stagner is in a

peculiar position, as concerns his mining on Antero. It is not unlike as if he was operating a quarry in Times Square, unable to eliminate traffic, yet held responsible if any of the many people passing by are injured. He worries much about it and asks that any one who wants to go up phone him ahead of time (or mail) and make suitable arrangements. I found in Colorado the same situation that one has here in the East, that is, access denied, or grudgingly given, because of the inconsiderate actions of some "mineralogist" who had been there before you. A little common courtesy, is always a great help, mineralogically speaking. But, after this diversion, let's get back to Antero. Mail addressed to Mr. Earl Stagner, Antero Reduction Co., Salida, Colo. will reach.

On this second day on the mountain, we further explored the aqua vein that ran down the quarry face. We worked out two small pockets, securing aqua, smoky quartz and quite a quantity of phenacite, mostly small xls and xl faces implanted on quartz. The time to go down came all too soon. We had a snow flurry or two this second day up, as we did on the first day. This trip concluded our Colorado collecting. Vacation days do seem to go so quickly. But I was happy. I had been twice on Antero, most remote of American localities.

On our way back, we stopped at Boodle Lane's place, Galena, Kan. It was a treat just to stop, look and talk, but, in addition, we secured a representative selection of Tri-State minerals. The number, variety and quality of things available was literally eye-opening. Prices were very fair. We were told that in the Tri-State district it was as we had found it in the Leadville area, that is, not a single mine was operating. Some scavenging operations were working on a small scale, that was all. Rest of the trip home was pleasant, but mineralogically uneventful.

Item about Delaware County, Penn.

A by-pass is being built around Media, Pa., and the path of the by-pass is thru territory of mineral interest. At the

eastern end, garnets of excellent form, up to an inch and a half, are fairly easy to secure. In the area just beyond Crum Creek extensive blasting has been done and pegmatite veins have been uncovered. Here were found garnet, tourmaline and a little yellow-green beryl. I hunted again and again for more beryl, but it eluded me. At the western end, the new road passes just west of the

well-known Mineral Hill area and about a mile of more or less decayed serpentine rock is exposed. I secured some small clinocllore xls. I can't get enough time to be on the site at just the right time. The job is moving fast and a pile of material that is there one day, is entirely gone the next. This hunting took place after our return from Colorado.

Thrilled over Winnie's Corner!

Editor R&M:

Since I live miles away from any other rock hounds and never meet any of them, I would be happy to have my name listed in your Collector's Corner and Visiting Rock-hounds Welcome column.

I've been a collector all my life and would like to contact with other collectors. Am thrilled over your Women's Corner by Winnie Bourne and hope to write to her.

Mrs. Bryce Allen
Box 486
Tribune, Kans.

Club offers help—hurrah!

Editor R&M:

If any mineral collector would like some information or directions on the collecting areas in our section, we (the Berks Mineral Society) would be glad to help him. We are located only 14 miles from the French Creek mines, 16 miles from Showalter's quarry at Blue Ball, and many other nearby localities.

Leonard E. Gerhart
326 Miller St.
Reading, Penn.



Litchfieldite boulders on Dennis Hill, Litchfield, Kennebec Co., Me.

Litchfieldite is a name that was proposed some years ago by W. S. Bayley for the variety of nephelinite-syenite occurring near Litchfield, Maine, in loose boulders whose chief feldspar is albite and which differ therein from normal nephelite-syenite.

In these boulders some rare minerals are found—sodalite (blue), cancrinite (yellow), lepidomelane (black), hydronephelinite (white), zircon (brown).

Montana, Treasure State for the Crystal Mineral Collector

By GERALD J. NAVRATIL

Box 70, RFD 2, Middleburg, N.Y.

It is the purpose of this paper to introduce to the readers of *Rocks and Minerals Magazine*, some of the less widely known crystal mineral localities within the state of Montana. Quite accurately the state has been officially designated "The Treasure State."

It is not possible to list all of the crystal locations. Certainly such common minerals as quartz, pyrite, garnet and others occur in crystal form at a great many localities and time and space would not permit listing them all. Attention therefore has been given to those of which the writer is best acquainted.

New ore bodies are each year being opened up and new crystal locations will be uncovered. Supplementary lists will therefore become necessary. In the course of mineral prospecting, quite often the prospector loses sight of the value of the crystallized gangue (waste) minerals and when he turns his attention toward more promising districts, soon forgets crystals he may have uncovered in the old prospects which he abandoned. Many good specimen locations are therefore lost to the mineral-minded public.

The well-publicized Butte copper district has been ignored since the writer feels certain that the reader is only too well aware of the crystal minerals which occur there. Attention therefore has been given to those which are not so well known.

MINERALS

Andalusite:

Near Dillon (Beaverhead County) in Axes Canyon, one small crystal of andalusite was reported.

Apatite:

At the Zonolite Mine, near Libby (Lincoln County), apatite crystals are found in vugs.

Arsenopyrite:

In the Emery Mining district (Powell County) the mineral is found in well-formed crystals in vugs. Slender prismatic crystals are of common occurrence. It has been noted in clusters in several places. Some crystals half an inch in length are abundant.

Well formed crystals are found within tourmaline crystals in the Blacksmith Shop tunnel of the Conrad property in the Crevasse Mountain Mining district near Jardine (Park County).

At the Kennebec mine in the Crevasse Mountain district (see above) small crystals of arsenopyrite are disseminated in schist in the ore.

It has also been noted in well-developed crystals characteristic of the ore encountered in the Jardine mine (see above). Noteworthy is the No. 1 vein of the mine on Mineral Hill. It is commonly found both in the schist and quartz lodes in xl form.

Barite:

At the Crevasse Mountain district near Jardine (Park County) on the Vindicator claim, one-half inch tabular crystals occur in a breccia of garnet and cumingtonite.

In the Hog Heaven Mining district (Flathead County) at the Flathead Mine, pale yellowish to colorless tabular xls occur singly and in clusters in pockets in a porphyritic latite. Specimens are almost uniformly abundant throughout the numerous dumps on the property, accessible by county road.

Boulangerite:

At the Emery and Blue Eye Maggie in the Emery district (Powell County), boulangerite is found in dark brownish-gray masses and as needle-like crystals.

Calcite:

Near Clyde Park (Park County) north of Livingston, calcite crystals occur in great abundance. Crystals were mined

during W.W. II for use in Nichols prisms and similar types of optical apparatus. Since only a very small fraction of material mined was suitable for commercial value the vast majority of crystals were discarded.

At the Snowstorm Mine on Callahan Creek west of Troy (Lincoln County) rough crystals occasionally occur in the lead-zinc ores. Also nearby at the Grouse Mtn. mine, small wedge-shaped crystals occur in ore.

At the Jardine Mine, located east of the town of Gardiner (Park County), calcite occurs in the 1238 vein in well developed flat rhombohedral crystals in quartz cavities.

Chalcopyrite:

At the Miller Claims on the head of Greenhorn Gulch, near Townsend (Broadwater County), crystals of chalcopyrite are associated with other crystals of galena, rhodochrosite and sphalerite.

Corundum:

At the Bozeman deposit, southwest of Bozeman (Gallatin County) corundum occurs as blue-gray opaque euhedral, hexagonal prisms as much as one inch long. Commonly the corundum is associated with feldspar.

At the Gallatin deposit (Gallatin County), about five miles southwest of the Bozeman deposit, corundum crystals occur as euhedral grayish-blue hexagonal prisms as much as three inches long. A few crystals eight inches long are reported as rarely found. Accessory minerals are microcline, biotite and plagioclase.

At the Bear Trap deposit southeast of Norris (Madison County) corundum crystals an inch in diameter are found. Commonly found as gray or white in color. Associate minerals commonly noted are microcline, plagioclase, muscovite and biotite with some quartz.

Diopside:

A few scattered crystals of diopside occur in marble at the Crystal Graphite mine near Dillon (Beaverhead County).

At the Zonolite mine, on Rainy Creek,

northeast of Libby (Lincoln County), diopside crystals as much as five inches long occur in dikes of mafic pegmatite.

Epidote:

Near the railroad station at Janney (Silver Bow County) a deposit is found containing numerous small crystals of epidote lining the walls of vugs.

At the Delome prospect west of Radersburg (Broadwater County) occasional xls of epidote are found.

Galena:

At the Emery Mine (Powell County) in the Emery district, galena in the form of cubo-octahedrons occurs in vugs. At neighboring mines, it is common in crystalline form in openings in the ore.

At the Blackhawk and Alice mines southeast of White Sulphur Springs in (Meager County), crystals of galena occur in jasper.

Also at the Silver Spoon mine southeast of White Sulphur Springs (see above) large cubes of galena occur in brown jasper.

At the San Miguel mine adit southwest of Stanford (Judith Basin County) scattered crystals of galena occur in schist with xls of sphalerite and pyrite.

At the Parsons Mine (Fergus County) coarse xls of galena have been found.

Occasional xls of galena may be collected at the Silver Wave mine (Broadwater County).

At the Satallite (Baker) claim near Boulder Creek (Broadwater County) scattered xls of galena also are found in ore specimens.

Garnet:

One inch crystals, associated with quartz and microcline, occur on the upper end of Granite creek near Sheridan (Madison County).

Near Lost Creek Falls (Deer Lodge County) small glassy clove-brown crystals of garnet occur. Rounded grains of green apatite also are present.

Small reddish-brown crystals are conspicuous in ore dumps of both the Big Eight and Snowstorm Mines on Callahan Creek west of Troy (Lincoln County).

At the Jardine mine, small reddish

crystals of garnet are common in occurrence in contact zones in the mine and in specimens on the dumps.

At the Crevasse Mountain district near Jardine (Park County) well-developed crystals of red garnet of good quality occur in quartz and schist. Occasionally these crystals measure a half inch in diameter.

On the east fork of Granite Creek near Sheridan (Madison County) flattened garnet xls occur with mica and iron oxide.

Hornblende:

On Horse Creek near Sheridan (Madison County) hornblende occurs in lustrous greenish-black prismatic xls, as much as two inches in length.

Labradorite:

As laths and individual crystals, labradorite is sparingly found in the Emery mining district near Deer Lodge (Powell County).

Microcline:

Near Dillon (Beaverhead County) near the forks of Camp Creek and Axes Canyon, two inch crystals of white microcline occur, associated with quartz, plagioclase and biotite.

Near Ennis (Madison County) a pegmatite of massive quartz contains some xls of pink-mottled microcline as much as eight inches wide.

Also in the same area (see above) about one mile north of Morgan creek, pink xls of microcline as much as six inches on an edge occur.

Some microcline xls in another nearby locality are reported to be one and a half feet across.

Microcline xls, some ten inches on an edge, are found on the Ennis-Virginia City road (Montana highway 34) associated with quartz.

About three miles from Sappington (Madison County), microcline xls associated with mica are found. Some of these crystals at this locality are eight inches long.

Buff to gray colored microcline xls, some eight inches on an edge, occur with white and rose quartz about eight

miles east of Dillon (Beaverhead County).

On Horse Creek near Sheridan (Madison County) four inch pink microcline xls occur with quartz and plagioclase. In a pod of rose quartz near an old chromite deposit at this district, occur scattered crystals of microcline, some of them ten inches on edge.

Near Lake Delmo (Jefferson County) microcline xls occur in vugs with smoky quartz and golden-brown sphene.

At the Timber Gulch Talc-Graphite deposit (Beaverhead County) crystals of microcline six inches on an edge occur. Nearby is found rose quartz.

At the Zonolite mine on Rainy creek northeast of Libby (Lincoln County) three inch microcline xls occur in syenite.

About two miles northeast of the Toll Mountain picnic grounds in the southwestern part of Jefferson County, crystals of microcline one and a half feet long were obtainable at one time.

Melanite:

About eleven miles east of Hamilton (Ravalli County) some melanite xls one inch across occur with apatite, sphene and epidote.

Millerite:

At the Argus Mine (Powell County) millerite is found in quartz lined vugs as hair-like xls.

Molybdenite:

In pegmatites and gneiss on the Mt. Cowan molybdenum claim (Park County) occasional scattered crystals of molybdenite are found. This claim is located in the Emigrant Gulch district, south of Livingston.

Muscovite:

At Sappington (three miles southeast—Madison County) dark-green muscovite xls occur with films of plagioclase and quartz. Some of the xls occur in vugs.

Pyrite:

At the Emery Mining district near Deer Lodge (Powell County) pyrite is found in xl and xline form. It is found in the cube, modified cube and pyritohedron forms. The cube normally is

striated. Commonly it is found in vugs and other natural openings.

Southwest of Windham (Judith Basin County) at the Running Wolf iron deposits xls and xl casts of pyrite occur.

Modified cubes occasionally are encountered in the ore fragments at the Snowstorm and Big Eight mining properties on Callahan creek west of Troy (Lincoln County).

Also in Lincoln County pyrite in the crystal form occurs at the following places: Kootenai Falls, west of Libby (limonite pseudomorphs after pyrite); at Pipe Creek ridge, north of Libby; and, at a rock outcrop in Belt Sediments on the forest service road about four miles west of Turner ranger station. (see Sphene)

(Note: pyrite occurs at many of the hundreds of mines in the various districts in the state and careful investigation of highly pyritized ores will undoubtedly reveal the mineral in xl form.) (see Quartz)

Quartz:

Near Lake Delmo (Jefferson County) in a quartz vein near the lake, iron-stained quartz xls are found. Some of the xls are doubly terminated. Some of the xls are half an inch in diameter. (see Sphene)

About two miles northeast of the Toll Mountain Picnic grounds (Jefferson County) tourmalinated quartz and amethyst occur. The amethyst xls occur on the tops and sides of the tourmalinated quartz. Pyrite cubes, plus quartz and plagioclase crystals are also found at another nearby locality.

Near Timber Butte (Silver Bow County) vugs containing one and a half inch quartz xls, some of them with dark smoky tips, are found. Yellow sphene xls also occur at this locality.

In the Emery district (Powell County) fine quality xls are abundant. It normally occurs as xls lining vugs.

Rhodochrosite:

At the Miller Claims on Greenhorn Gulch (Broadwater County) occasional xls of rhodochrosite occur. (See Chalcopyrite)

Sphalerite:

Rarely at the Emery mining district was sphalerite developed in modified cubes, tetrahedrons and some octahedrons. Only at the Emery mine have crystal forms been noted.

Coarse xls occur with similar types of galena xls at the Parsons Mine (Fergus County).

(See Galena and Chalcopyrite).

Sphene: (titanite)

Golden-brown sphene occurs in $\frac{3}{4}$ -inch long xls near Lake Delmo (Jefferson County). Associated with the sphene is smoky quartz, also quartz xls half an inch in diameter and pyrite cubes a half inch in diameter. (See quartz above).

Sulphur:

Bright yellow octahedron xls of sulphur occur near Yellowstone Park south of Livingston (Park County).

Sylvanite:

At the Golden Jack mine, northeast of Lewistown (Fergus County) sylvanite in xl form occurring in fluorite has been reported.

Titanite: (See Sphene, also Tourmaline.)

Topaz:

It was reported that topaz was found once in clear xls in an inaccessible part of the ore body of the Parsons Mine (Fergus County).

Tourmaline:

Black crystals as much as an inch long in a quartz matrix are found in Axes Canyon near Dillon (Beaverhead County).

At another locality near the above, xls of black tourmaline measuring two inches in length and $1\frac{1}{2}$ inches wide are found in pegmatite.

Large black xls over an inch in length are also found in Jefferson County. Many of the tourmaline xls are associated with brownish wedge-shaped xls of sphene (titanite).

At the Hidden Hand mine (Powell County) tourmaline occurs as pyritized xls.

About twelve miles southwest of Ennis (Madison County) black tourmaline xls two inches long are found.

Also in Madison County about one mile north of Morgan Creek black tourmaline is occasionally found in scattered one-inch xls.

Wulfenite:

Small, tabular golden-yellow xls of wulfenite occasionally are encountered in vugs and cavities in quartz gangue at the Glacier Silver-Lead mine on Granite Creek near Libby (Lincoln County).

Zoisite:

Light greenish-gray crystals both in column and fibrous form are found at the 910 adit of the Jardine mine near Gardiner (Park County).

Unconfirmed

Beryl:

At the White Swan deposit on Gran-

ite Creek (Madison County) a few small xls of pale-colored beryl are reported to have been found. The writer did not have the opportunity to see these specimens. Discoveries of beryl from the pegmatite regions of south-central Montana have been reported from time to time but specimens have not to date been officially recorded as having been noted in place at any of the many mineral deposits within Montana.

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GEM AND MINERAL COLLECTING IN THE TRANSVAAL

By T. COLEMAN, 9 Gloucester Ave., Sandringham, Johannesburg, Transvaal, So. Africa

For many a decade now, Transvaal has been known for its mineral wealth. Gold, diamonds, corundum, copper, coal, tin and many other, all highly prized minerals, have been discovered, and are being used in industry and commerce. It is therefore natural that, for the Rockhound, the Transvaal is indeed a happy hunting ground.

Those locations that are well known, have yielded many a fine specimen for the polishing lap or cabinet. I am very sure though, that there are many locations still to be discovered and exploited.

Many fine agates are to be found on the Southern borders of the province, along the banks of the Vaal river. During our club outings, we found good agate boulders, fine moss agates and landscape agates that, when polished, look like fine Japanese wood-cuts. The banded agates produced very good cabs, while some of us were even lucky to fine blue chalcedony. As this location used to be an old diamond diggings, the work was not too tedious. The red, orange, brown and black chalcedony, agates and a variety of other material

including some wood agates were easily picked up.

Around Johannesburg itself, many varieties of quartz can be located. Amethyst, citrine, smoky and clear quartz are quite numerous. There are three locations, (that I know of), where amethyst can be obtained. They are: 1. Lombardy East, 2. Yukski River, 3. Veldskoek Drive-In area.

From the first location I have recovered four small but fine groups of amethyst crystals. Three have iron traces i.e., redness, in them. The fourth has a very deep purple colour.

The Yukski location was well known before the war, so hardly any good material has been left. Near the Veldskoek Drive-In, however, the amethyst is of quite a good quality. There is quite a good deal of citrine here as well. I also came across some quartz crystals that are pitch black which, I am told, is due to radioactivity. Many good cabs have been made from the latter location's material.

Going westward from Johannesburg, towards Krugersdorp, there are some old

asbestos mines which have ceased production. In their rock dumps some good serpentine, asbestos, and rock that resembles Transvaal jade (grossularite) can be found. The serpentine is very easy to handle and takes a very good polish. The rock that looks like Transvaal jade also cuts and polishes very well. Its colour varies from dark green through light yellow and looks quite impressive as a cabochon. One of the club members made a cab of serpentine (light green) with parallel asbestos veins included in it. It gave off a very good chatoyant effect.

Near to these diggings are the Sterkfontein caves where Mrs. Ples and her bony associates were found. The caves are full of stalagmites and stalactites, have very good calcite and aragonite crystals. These crystals have taken the shape of tree-like branches. Our guides sold some matrix with fossil bones imbedded in them. I wonder if this is not a thriving industry with the guides, by manufacturing their own "Bones". Near the same area, we found some highly metallic lustrous specimens of hematite. They make good cabinet specimens.

There is also a great variety of material around Pretoria. Olivine, Transvaal jade, amethyst and some good material from Premier Mines (when permission is granted) can be found.

Going Northwards towards Warmbaths good rock crystal can be obtained from the Hammanskraal area). Around Warmbaths itself one can find jasper, chalcidony, carnelian banded ironstone,

fluorspar and rose quartz. All of these take a very good polish.

As the Northern Transvaal is highly mineralized, a great variety of specimens are to be found. I was lucky enough to go to a beryl mine near the Klein Letaba river. The whole area is pegmatitic, which is always a good source for material. In the one area alone we found cassiterite, garnet, mica, rose quartz, rutile, black tourmaline, magnesite, tantalite, iron pyrite and green rock with mica inclusions which might be aventurine. We were also given some pink beryl or morganite, corundum, spodumene and some emeralds by the mine owner.

Travelling in a South Easterly direction again we come to Barberton, the site of the old gold mines. This is also a highly mineralized area. Asbestos is quite abundantly found. The serpentine is of very good quality. The colour varies from a deep green to a very light green. In thin sections the serpentine has a deep emerald colour, which looks quite attractive. The Barberton valley is a definite Rockhound site and I am sure they won't come back empty handed.

As a keen Rockhound myself, I feel sure that many an untouched spot is waiting to be discovered by eager Rockhounds and their pack. Will it be topaz, will it be zircon, or will it even be some new and exciting mineral, which has not as yet been introduced to Mineralogy? Nobody knows until the ever-searching, ever-digging Rockhound comes to light with his hard day's work.

Collector's Corner

For the special benefit of collectors who may be living in areas far removed from other collectors we have opened this feature. In this corner, a collector may have his name and address listed for the purpose that other collectors may write him in the hope that through correspondence, exchange of ideas and specimens, new friendships may be formed. Listings are free.

Gary L. Powers, 1126 E. 3rd Ave.,
Mesa, Ariz.

Mr. & Mrs. E. J. Bentsen Rt. 1, Box 508,
Delhi, Calif

Mrs. John Branch, 3820 Ridge Ave.,
Tampa 3, Fla.

- Mrs. Bertha Lawrence, 2311 Arcadia Dr.,
Miramar, Hollywood, Fla.
- George & Velma Wyatt, 2002-57th,
Tampa 5, Fla.
- Maurice Lamb,
Niota, Ill.
- Paul L. Doggett, 950-65th St.,
Des Moines 16, Iowa
- Malcolm Arnett, RFD 1, Box 253,
Corydon, Ky.
- Nelson Garner, RR 2,
Sharpsburg, Ky.
- Mrs. Valentine Lippold, R. 2, Dexter, Maine
- Timothy K. Beck, 9 Arthur Rd.,
Andover, Mass.
- Leslie R. Clift (11 yrs.), N. Main St.,
Raynham Center, Mass.
- Larry Smith (12 yrs.), 2051 Clyde Park
S.W., Grand Rapids, Mich.
- David Klinshaw (11 yrs.),
153 Oakland Ave., Audubon 6, N.J.
- Mr. & Mrs. John T. Swift, 955 Beatty St.,
Trenton 10, N.J.
- William M. Lemmon, 2023 Grove St.,
Brooklyn 37, N.Y.
- Mrs. Dorotea M. Rowe, RD 1,
Nassau, N.Y.
- Robert E. Bedford,
14 E. Main St., Johnstown, N.Y.
- Ralph W. Caton, 51 Valley St., Concord,
N.C.
- Allen E. Marks, 12215 Ashbury Ave.,
Cleveland 6, Ohio.
- David Belusko, 776 Grant St., Hazleton,
Pa.
- Richard C. Haefner, 217 Nevin St., Lan-
caster, Pa.
- Mrs. Walter Dundorf, Jr., 445 Valley St.,
Marysville, Pa.
- Thomas Petro (16 yrs.), 905 Meade St.,
Reading, Pa.
- C. Nicholas Speltz, 1917 Foster, Memphis
14, Tenn.
- Edward Helpenstell, 1429 Sandpiper Dr.,
Houston 36, Texas
- T. Nichols, Rt. 4,
Bowie, Texas
- V. Sabin, 723 Steves,
San Antonio 10, Texas
- Ben Marshall, P.O. Box 926,
Amelia, Va.
- J. E. Rawles & Jimmie, 51 Green Oaks
Road, Newport News, Va.
- Bob Brock, 315 E. Commercial St.,
Appleton, Wisc.
- Benj. L. Handley, 114,
Clio, Calif.
- Claude A. Potter, Box 115
Hemet, Calif.
- CWO Vernon R. Braun, 9004 Rosewood
Drive, Sacramento 19, Calif.
- Louis C. Davis, 505 S. Slappey Dr.,
Albany, Ga.
- Jim Jackson, 24 Oakwood Dr.,
Prospect Hts., Ill.
- Frank Acuff, Jr., (12 yrs.) CMR 83
Bartonville, Ill.
- Rudolph V. Frana, 1741 N. Keeler Ave.,
Chicago 39, Ill.
- Mrs. Bryce Allen, Box 486,
Tribune, Kans.
- Norman Dubie, Jr., 214 Cedar St.,
Bangor, Me.
- Walter Kalata, 100 Shamrock St.,
Ironwood, Mich.
- Cheryl Miller (12 yrs.), 508 Orange St.,
Concordia, Mo.
- Merryl & Mary McCoy, RR 3,
Kahoka, Mo.
- Tod Ashmun (11 yrs.), 2640 Sewell
Lincoln, Nebr.
- Jack Ryason, Box 245,
Bridgeport, Nebr.
- L. Michael Kaas, 18 N. Mansfield Ave.,
Margate City, N.J.
- John Tutaro, 221 Busti Ave.,
Buffalo 1, N.Y.
- T. D. Burns, Rt. 1, Box 299A,
Matthews, N.C.
- Myrtle Gentry, Rt. 1,
Dobson, N.C.
- R. L. Brown (13 yrs.), Rt. 1,
Dobson, N.C.
- Wilber Carpenter, Rt. 1,
Dobson, N.C.
- Robert M. Maher (14 yrs.), 1149 Parkway
Drive, Columbus 12, Ohio
- The Lomoziks, Forest Dr. 10,
Brunswick, Ohio
- F. H. Chenevy, 727 S. Mill St.,
Orrville, Ohio
- Larry Volkert, 54 N. Pleasant St.,
Middlebury, Vt.
- Rudy J. Bland, Jr., 3218 Rueger St.,
Richmond, Va.
- Mrs. B. Gartrell, Rubyvale P.O.,
Central Queensland, Australia

EARTH MOVING

By FRANK H. WASKEY, Oakville, Washington

The surface material of Mother Earth moves about by many means. Man is constantly improving equipment to facilitate his labors, all of which must start from the ground—up or down. Stupendous, no less, are some of the jobs being done by machinery in America, Europe, Africa; and by arm and leg power in China. However, the yardage moved or moving by Man is as a salmon egg in a pot of dog feed, compared with what Nature has accomplished in transforming the contours of our Planet.

Wind erosion is one of the factors in sculpturing the landscape that is not usually thought of as a major force, although evidence of its power and long continuance may be seen wherever one travels.

In Alaska, from the distant past to this very day, the moving atmosphere has dug deep and moved effectively; uncovering and occasionally concentrating minerals, building broad fields, perambulant dunes and lovely hills.

The gouging and shoving power of glaciers is common knowledge. There is another form of ice transportation not so well known. Its preparation and carrying out may be witnessed any Spring. The larger rivers of Northern Alaska are often held by their winter fetters of ice for some weeks after their steep side tributaries "break up". As these side torrents are loosed by the warm suns and soft breezes of May and June, they come tumbling down their steeply graded courses, often impinging on rims of bench gravels. Their loads of detrital matter are carried past their mouths and spread out on the still-holding ice of the parent stream. When the river "breaks" often great blocks of ice, protected by their mantle of earth and rock, will start toward Bering Sea or the Arctic Ocean. Much of this top load, no doubt, in the course of its journey sinks to the river's bottom, but sometimes a great block of this mantled ice, caught by a jam will be forced on one of the low lying shores that are often found along the lower

reaches of large rivers. The grounding of the ice raft may be facilitated by the pressure of a steady, not necessarily strong wind, on heaped up blocks of ice a half mile or more in closely packed width.

A diagonal, cross, or a down river breeze has been observed to force ice many yards up and on a lee shore, even at times to a substantial height above the brim-full river's width of up-tilted ice chunks. In the course of time, this material may be covered with silt and a mantle of plant life, except where it may outcrop near the river's brim. The writer knows of two instances, before the days of outboard motors, when Prospectors slowly poling their shovel-nosed boats upstream, paused to pan outcrops of rusty gravel thus exposed. They found colors of gold, and having made camp, soon learned that the likely looking rusty gravel "petered out" a few paces away. And then ensued speculation—"Where did this dab of rusty, gritty, gold-bearing gravel come from, and how did it get where a practiced eye caught its glint in its drab surroundings? Oh well! 'Gold is where you find it' and there must be more up river or in 'Them thar Hills' beckoning in the distance".

During August 1958, the writer saw an instance of how a quantity of hard rock had hitched a ride from some distant shore to be stranded on Kujulik Bay on the Alaska Peninsula. About twenty feet of the bole of a giant Coniferous tree was hung up near low tide line. Several of the broken knees of this one-time sentinel of the distant shore in Asia or American were anchored in the sand. Waves had canted the top of the bole around till the drifter was lined up at right angles to the beach. Held securely in the roots of the tree was a mass of rock that had underlain this pine or fir or spruce when it was upright in a more favored and temperate clime. There was at least half a cubic yard of the bedrock from which had decomposed the probably scanty soil in which, with

the moisture laden Pacific air, this great tree had achieved its growth. With some difficulty, I knocked off a couple pieces of the rock, and with my pocket knife cut a length of tiny rootlet. There are no trees of a comparable growth within a thousand miles, airline, of the giant's resting place.

Perhaps some one versed in Dendrology and Lithology, from a study of the rock and the rootlet, may give a good guess as to where this Wanderer of the Seas started its storm-battered voyage.

(Editor's Note—Mr. Waskey lived in Alaska for many years and his above observations were all made in that state.)

VISITING ROCKHOUNDS WELCOME

The following subscribers would be delighted to have rockhounds call on them when passing through their cities. If any one else wants his name added to the list, just let us know.

John & Clara Roder, ½ mile south of junction Hwy. 7 north & 70 between Hot Springs & Little Rock, Ark.

Mr. & Mrs. E. J. Bentsen, Rt. 1, Box 508, Delhi, Calif.

Mac & Maggie McShan, 1 Mi. west on Hy. 66, Needles, Calif.

Porter, A. W., Pepperwood, Calif.

Randall Bohmer, 208 Warren St., New Britain, Conn.

Mrs. John Branch, 3820 Ridge Ave., Tampa 3, Fla.

Mrs. Bertha Lawrence, 2311 Arcadia Dr., Miramar, Hollywood, Fla.

Maurice Lamb, Niota, Ill.

Susan Tranter, 2 E. Walnut, Sharpsville, Ind.

John Burmeister, Preston, Iowa

Paul L. Doggett, 950—65th St., Des Moines 16, Iowa

Mr. & Mrs. Toivo Puranen, Ellis Rd., RFD 2, Box 67, Westminster, Mass.

Rev. M. Everett Corbett, Acworth, N.H.

James B. Moore, West St., Antrim, N.H. Phone 154

Mr. & Mrs. Rudolph Arp, 99 Mountainside Terr., Clifton, N.J.

Mr. & Mrs. John T. Swift, 955 Beatty St., Trenton 10, N.J.

Vernon Haskins, Curator, Durham Center Museum, East Durham, N.Y.

Ralph W. Caton, 51 Valley St., Concord, N.C.

Burl H. Van Dyke Rt. 1, Boone, N.C.

Waldo Blair, 1777 E. 31st St., Lorain, Ohio.

Mrs. Daisy Lynn, 204 E. Dalton, Hugo, Okla.

Mr. & Mrs. A. B. Carson, 12 Cateechee Ave., Greenville, S.C.

Rev. Theo. H. Judt, 520 N. Washington Ave. Scotland. S.D.

Edward Helpenstell, 1429 Sandpiper Dr., Houston 36, Texas

T. Nichols, Rt. 4, Bowie, Texas

V. Sabin, 723 Steves, San Antonio 10, Texas

Herman Kraege, Lima Center, Wisc.

John J. Brown, 5016 E. Broadway, North Little Rock, Ark.

CWO Vernon R. Braun, 9004 Rosewood Drive, Sacramento 19, Calif.

Louis C. Davis, 505 S. Slappey Dr., Albany, Ga.

John H. Kaiser, East 3rd St., Sheridan, Ill.

Mrs. Bryce Allen, Box 486, Tribune, Kans.

Lawrence J. Eddy, 359 Midland Ave. Ironwood, Mich.

Rev. Luke McMillian, 742 Comfort St. Lansing 15, Mich.

Merryl & Mary McCoy, RR 3, Kahoka, Mo.

Jack Ryason, Box 245, Bridgeport, Nebr.

L. Michael Kaas, 18 N. Mansfield Ave., Margate City, N.J.

Clyde D. Thomas, 853-57th St., N.W., Albuquerque, N. Mex.

Edward B. Thomas, 26 John St., Owego, N.Y.

J. P. Cessna, 218 Baltimore St., Gettysburg, Pa.

Larry Volkert, 54 N. Pleasant St., Middlebury, Vt.

Rudy J. Bland, Jr., 3218 Rueger St., Richmond, Va.

G. W. Weber, 1320 Portland Ave., Walla Walla, Wash.

Lyle De Rusha, RR 4 Chippewa Falls, Wisc.

REPORT ON AZEGOUR, MOROCCO

By JOHN F. JEDLICKA

7212 Stratton Way, Baltimore 24, Md.

My good friend, French geologist Francois Permingeat, recently finished his doctorate dissertation on the deposits at Azegour, Morocco. He had invited me to visit Azegour with him during the summers of 1956 and 1957, but it was "out of bounds" to U.S. military personnel then, and still is, at the present time.

Just before I left Morocco, Monsieur Permingeat was good enough to describe parts of his paper to me in English and to provide me with some samples of the various minerals that occur there.

As this locality is perhaps not known in the States, I thought I might relate to you from the notes that I took during our discussion.

Azegour is located 190 miles south of Casablanca.

The area was first explored in 1921. In June, 1924, molybdenite was found by French geologists, Poldin and Coutin, and the mine produced molybdenite until 1947. In December, 1949, scheelite and pitchblende were discovered. Then there was some production of scheelite. Azegour is one of only two places in Morocco where pitchblende is known to occur and the only place to produce a small amount commercially. M. Permingeat tells me this pitchblende deposit is not well known.

Also some years ago, a vein composed of nickel arsenates, native bismuth, and silver sulfo-salts, was discovered, but this seems to be of interest only to collectors.

At present the mine is in operation and its main product is chalcopyrite. Ore is removed from the mine, further enriched at the flotation plant located on the premises, and then trucked to Marrakech. It travels by rail to Casablanca and then is shipped to the North Deutscher Affinerie at Hamburg, Germany.

At Azegour, we find Paleozoic formations consisting of granite intruded in schists, volcanic rocks, and limestones. All formations are nearly vertical and

trending north-south. Mineralization is only in metamorphosed limestones. Metamorphism of limestones resulted in garnet and pyroxene rocks. Mineralization is in garnet rocks for molybdenite and scheelite and in pyroxene rock for chalcopyrite.

The following is a list of some of the minerals that have been found and studied by M. Permingeat:

Allanite: poorly xlied in pegmatites—small grains in lime-silicate rocks with epidote.

Argentite: rare—some big nodules.

Barite: generally red, massive—good xls up to 20 cm. in length, coated by iron oxides and small chalcopyrite xls can be collected.

Bayleyite: Azegour is the second occurrence of this mineral in the world. Just a few specimens have been found. It occurs as crystalline coatings on dolomite.

Bismuth: rare—in grains, nodules and veinlets.

Calcite: scalenohedrons, in geodes, very abundant.

Chalcopyrite: occurs massively and in small xls. (fine iridescent micros)—very abundant in some geodes.

Dolomite: massive, small rhombohedrons in geodes.

Ferrimolybdate: yellow needles in quartz geodes—rare.

Fluorite: massive, white, pink, lilac, blue, violet,—small cubic xls—rare.

Galena: occasionally good xls.

Goethite: brown needles (fine micros).

Garnet—andalusite var. Big greenish-black dodecahedrons. Grossularite var.—small fairly good xls.

Gersdorffite: rarely as small octahedrons.

Idocrase (vesuvianite): duparcite variety described for first time at Azegour, some good xls up to 10 cm. in length.

Loellingite: massive—rare.
Magnetite: common, pseudomorphs after oligiste (hematite xls).
Malachite: massive—rare.
Melanterite: needles on dolomite (good micros)—rare.
Molybdenite: abundant xls—rosettes up to 8 cm.
Niccolite: massive—associated with maucherite and rammelsbergite.
Palygorskite: in some geodes.

Pitchblende: massive, globular.
Powellite: good pseudomorphs after molybdenite on outcrops—rare.
Pyrargyrite: grains.
Pyrite: generally massive—also good cube and dodecahedron xls.
Pyroxene: diopside rocks are massive, fine grained. Hedenbergite rocks show slender xls up to 30 cm. in length.
Pyrrhotite: massive.

Hawaiian Islands Minerals

Many of our subscribers have relatives and friends in the armed forces stationed in the Hawaiian Islands and who want to do some collecting.

Quite a number of minerals occur on the islands, perhaps the most common is the glassy, greenish olivine found chiefly in the area surrounding the Crater of Kilauea on Hawaii Island.

In the basalt cliffs of the town of Kailua, on the southeastern coast of Oahu

Island, some very interesting quartz minerals occur. Chalcedony, the native "moonstone," is found in white rounded masses which are often encrusted by drusy quartz. Good masses of red jasper furnishes an interesting gem stone. Rock crystal, the famous "Hawaiian diamond" is fairly common as small crystals associated with the chalcedony.

For other minerals inquire at the Department of Geology, University of Hawaii, in Honolulu.



An opal-lined swimming pool near Queretaro, Mexico.

Not everyone can boast of swimming in an opal-lined swimming pool as can the Indian in the above photo. While he is taking a bath, his wife washes his clothes.

The above pool is in a famous precious opal mine near Queretaro, Mexico. Mexico is famous for its opals.



WORLD NEWS

ON Mineral Occurrences

ITEMS ON NEW FINDS ARE DESIRED
PLEASE SEND THEM IN.

Abbreviations: xl—crystal
fl—fluoresces

xled—crystallized
ph—phosphoresces

xline—crystalline

ALABAMA—Gold has been mined at a number of localities near Waldo, Talladega Co., Ala., so we have been informed by James Miller Davis, 210 Guaranty Savings Bldg., Montgomery, Ala.

ARIZONA—Beautiful bluish-green amorphous specimens of chrysocolla have been found in Kingman, Mohave Co., Ariz.

ARKANSAS—Corbin's, Box 666, Yellville, Ark., have donated a very nice specimen of turkey-fat ore from the old zinc mines at Rush, Marion Co., Ark. Turkey-fat is a local name for smithsonite, colored yellow by greenockite; so called from its appearance.

CALIFORNIA—Nice black masses of psilomelane have been found in the gold mines at Grass Valley, Nevada Co., Calif.

COLORADO—The following item was sent in by Pat Fancher, Ouray, Colo.

"Good red garnets are found at the Highland Mary Lakes near Silverton, San Juan Co., Colo. Horse or hike but take a fishing pole."

CONNECTICUT—From a limestone quarry near Canaan, Litchfield Co., Conn., we have a very nice specimen

of white xline limestone that was sent in by Jason G. Clark, West Cornwall, Conn. In the limestone are large, grayish, bladed tremolite xls., tiny brassy-yellow pyrite xls., and yellowish micaceous flakes of phlogopite.

DELAWARE—Bob and Hazel Reynolds, Stocksdale Rd., Kingsville, Md., have sent in a brownish fossil coral pebble which they found on Bowers Beach, Kent Co., Del.

FLORIDA—Some few months we received a specimen of gray, petrified coral on massive grayish quartz from Eugene Engman, Box 87, Nokomis, Fla.

"This small chunk of petrified coral was found at St. Leo (Pasco Co.), Fla., where many things, including houses, gates and walls are made of it. I have not been able to trace exactly where it came from but I think it was within about two miles of St. Leo."—on label.

GEORGIA—Fine specimens of green fuchsite in limestone have been found in the marble quarries of the Georgia Marble Co. at Tate, Pickens Co., Ga.

IDAHO—"About 10 air miles northwest of Bonners Ferry (Boundary Co.), Idaho, on the Trout Creek Road, about one mile west of the West Side Road,

black tourmaline xls, some measuring $\frac{3}{4}$ of an inch in length, are found in a narrow pegmatite consisting largely of quartz and mica."—item sent in by Gerald Navratil, Box 70, RFD2, Middleburg, N.Y.

ILLINOIS—Lustrous, coarse xline galena has been found in the Alco lead mine in Cave-in-Rock, Hardin Co., Ill.

INDIANA—Slender, black xls of goethite coating rock xls in quartz goeodes occur at Bean Blossom, Brown Co., Ind.

IOWA—Tiny black magnetite xls in dark green chloritic schist were found in a large rock in a ditch in Melrose, Monroe Co., Iowa, by Michael Papcun, RR 1, Melrose, Iowa.

KANSAS—A beautiful silver belt buckle in which was mounted a large, beautifully polished banded, brown, gray and red petrified wood was sent in by Mr. & Mrs. Rex Hile, 238 S. Richmond, Wichita 13, Kans.

"This petrified wood came from Barber County, Kansas. I am not sure of its exact location but believe it came from about 18 miles southwest of Medicine Lodge."—note from Mrs. Hile.

KENTUCKY—From SFC. William J. Malarkey, who is stationed in Germany, we have the following item:

"While stationed at Fort Knox (Hardin Co.), Ky., I did some collecting in the limestone quarries on the reservation. I found white cubical calcite xls in vugs in the limestone, also variable pieces of chert some with black dendrites."

LOUISIANA—Brown pebbles of petrified wood have been found in a large gravel pit near Monroe, Ouachita Parish, La.

MAINE—Small white xls of adularia (orthoclase) associated with epidote, esonite, and vesuvianite have been found in a ledge near Cornish, York Co., Me.

MARYLAND—Zelma Wright, Jr. 3105 Dundalk Ave., Baltimore 22, Md., sent in a coarse xline, white calcite which he found in a vertical vein in a road cut approx. 1 mile east of road on north side of Beltway, Baltimore Co., Md.

"There is a good collecting area at junction of Joppa Road and Baltimore Beltway, road construction. I found many black tourmaline xls up to $\frac{1}{2}$ inch diameter (they are quite brittle) approx. $\frac{1}{2}$ mile N.W. of junction."—letter dated Aug. 28, 1958, from Mr. Wright.

MASSACHUSETTS—Ernest H. Fink, West Chesterfield, Mass., sent in a small but attractive specimen consisting of 2 tiny dark red almandite (garnet) xls perched on a lustrous dark gray mica schist. Thin plates of black biotite coat the garnet so that the xls appear to be black.

"Found on side of a small mountain which I call Mt. Tom Jr., in West Chesterfield, Hampshire Co., Mass."—on label.

MICHIGAN—"Orange colored sheets of selenite are found in the quarry at National City, Iosco Co., Mich. These sheets of selenite vary in thickness from $\frac{1}{8}$ to $\frac{1}{2}$ an inch. They make attractive transparencies."—John F. Mihelcic, 16543 Appoline, Detroit 35, Mich.

MINNESOTA—Black, lustrous masses of fayalite occurs in metamorphosed taconite near Mesaba, St. Louis Co., Minn.

MISSISSIPPI—Beautiful iridescent baculites (fossils) occur in the bluffs of Owl Creek, 3 miles N.W. of Ripley on the Troy Road, Tippah Co. Miss.

MISSOURI—Three groups of nicely sized marcasite—two pale brassy-yellow, the third tarnished bluish-greenish-yellowish, were sent in by Geo. C. Dick (Argyle Mineral Shop), 9207 Argyle, Overland 14, Mo.

"Marcasite, Phelps Co., near the Missouri School of mines at Rolla, Mo."—on label.

MONTANA—From a rock quarry near Livingston (Park Co.), Mont., in cavities in basalt are found slender white needles of natrolite. These make very attractive specimens."—Gerald Navratil, RD 2, Box 70, Middleburg, N.Y.

NEBRASKA—From a gravel pit near Ashland, Saunders Co., Nebr., we have a thin but beautifully polished slab of dark brown banded agate cut from a large pebble found by I. Everett (Everett Lapidary Shop), 2941 N. 65th St., Lincoln, Nebr.

NEVADA—"At the northeastern Nevada city of Elko (Elko Co.), Nev., I found fossil imprints of fern leaves at an abandoned oil shale mine southeast of the city."—note sent in by A/2C Lawrence E. Wright, 55 PMS, Box 119, Forbes AFB, Kans. Mr. Wright's home is in Carson City, Nev.

NEW HAMPSHIRE—A 3" x 4" group of rock xls was recently donated to this department by John A. Albanese, P.O. Box 221, Union, N.J. Judging from the label which came with it, this beautiful specimen is an old timer. The label reads: "Quartz, Black Mountain (Carroll Co.), N.H."

NEW JERSEY—From Paulison's Sink Cave, Franklin, Sussex Co., N.J., we have a specimen of gray oolitic limestone sent us by Lawrence Chapman. 41 Church St., Franklin, N.J.

NEW MEXICO—"Since attending Texas Western College I have made numerous Mineral collecting trips to New Mexico, and I am happy to say that I have had great success. I have limited most of my trips to southern New Mexico, but I have made one trip to Kelly.

"My favorite locality is Orogrande (Otero Co.), New Mexico. This was once an important iron district, and is located 50 miles northeast of El Paso in the Jarilla Mountains. These mountains consist almost entirely of quartz monzonite, flanked by beds of limestone. Mineralization occurs in the limestone close to the monzonite contact.

"The principal iron minerals are hematite and magnetite. The hematite occurs as beautiful, silvery micaceous masses, and the magnetite occurs as masses and octahedral crystals. Martite pseudomorphs after magnetite and pyrite are fairly common.

"Various copper minerals are in abundance. Malachite, in beautiful, silky clusters, is common in one of the mines, but I have not been able to find it elsewhere. Chrysocolla occurs as blue coatings on limestone. Bornite and chalcopryrite are common, and traces of turquoise can be found.

"Orthoclase crystals are abundant at one particular locality. These crystals range in size from $\frac{1}{8}$ " up to 2", and they are cream-colored. Carlsbad twins are also quite common. Under separate cover I will send you several of these crystals."—letter dated Nov. 24, 1958. from William Dillon, Texas Western College, c/o Worrell Hall, El Paso, Texas.

Some beautiful, loose xls of flesh-colored orthoclase were received. They were $\frac{1}{2}$ inch long.

NEW YORK—Donald Presher, Montrose, N.Y., President of the R&MA, has been making some very interesting finds in southeastern New York. One of these finds consists of $\frac{1}{4}$ inch cubes of brassy-yellow pyrite on lustrous black biotite. The crystals are not perfect (a

little fractured) but they are nicely tarnished and make a most attractive specimen—perched on the black biotite mass.

Buell Abbey, Prop. of Whiteface Mineral Shop, 424 Main St., Lake Placid, N.Y., sent in a nice specimen of dark bronzy-black phlogopite which he had collected on the dumps of the talc mine at Balmat, St. Lawrence Co., N.Y.

NORTH CAROLINA—"I am sending you a specimen found on my farm. I have been told that it is composed of fuchsite and pink corundum. I have also been told that it is highly fluorescent."—letter from R.D. Groves, Rt. 2, Union Mills, N.C.

The specimen received is truly a beautiful one consisting of lustrous bright green fuchsite and pinkish xline corundum, but is not fluorescent.

Union Mills is in Rutherford County of S.W. North Carolina.

NORTH DAKOTA—Florence Newsum, Hurdsfield, N.D., sent in a nice bluish-gray chalcedony she had found on her farm.

Hurdsfield is in S.W. Wells County which is in central North Dakota.

OHIO—"I am sending you a specimen a friend sent me which I can't identify. He has many of these minerals from 1 sq. inch up to 5 sq. inches. My friend lives on a shale bank (the mineral is from this shale) about 7 miles west of Huron (Erie Co.), Ohio."—letter from John Charles Holliger, Chaska Beach, Huron, Ohio.

The specimen is group of small brassy-yellow pyrite xls slightly tarnished brown.

OKLAHOMA—"Camp McFadden is the camp for Campfire Girls. It is located approx. 10 miles N.E. of Ponca City (Kay Co.), Okla.

"Geodes with dogtooth calcite xls

and barite are found on the red clay hills here and along the Arkansas River at this point. The geodes are about 1" across."—item sent in by Mrs. Alton Horne, 308 Coolidge., Ponca City, Okla.

OREGON—From the famous obsidian locality at Glass Butte, near Stauffer, Lake Co., Ore., we have a very nice brownish-black obsidian mass sent us by Mrs. Inez O. Rogers, P.O. Box 184, Oakridge, Ore.

PENNSYLVANIA—"During the past summer I had the opportunity to visit several mineral localities including Cornwall (Lebanon Co.), Pa. I would like to mention the very courteous treatment afforded me here at the Bethlehem-Cornwall Corporation Mine which included a visit to the high dump where, in a comparatively short time, a very representative suite of minerals characteristic of this mineral deposit could be collected. These included well crystallized cobaltiferous pyrite, chalcopyrite, the unusual lamellar variety of magnetite, as well as specular hematite. Some andradite garnet was obtained although not especially well crystallized."—letter dated Jan. 4th 1959 from Sidney W. Poole, 1346-22nd St., N.W., Canton 9, Ohio.

RHODE ISLAND—Another old timer sent us by John S. Albanese, P.O. Box 221, Union, N.J., is a fine specimen of smoky quartz containing inclusions of slender black hornblende xls. Locality is Diamond Hill, Providence Co., R.I.

SOUTH CAROLINA—"I am now in McCormick, S.C. The red clay banks in back of the motel are pretty well sprinkled with enclosed (crystals?) or do we have square pebbles down here?"

—note sent in by Mrs. Olive E. Looney, whose home address is Lincolnton, Me.

The square crystals ($\frac{1}{4}$ to $\frac{3}{4}$ inch square) are dark brown limonite pseudo after pyrite. They are very nice. The

motel mentioned is the Oak Hill Motel (recommended by Duncan Hines) in McCormick which is in the center of McCormick County in western South Carolina.

SOUTH DAKOTA—"Marindahl Dam, about 6 miles S.W. of Irene in Yankton County, S.D.—large selenite roses up to 3" across of a pale yellow color, large plates and "logs" of gypsum; yellow calcite (xline); and for the fossil collector—mosasaurs, shark teeth, ostrea congesta, and fish scales and bones. The fossils are found in the white Niobrara Chalk, the selenite etc. found in the overlying Pierre Shale. These formations are cretaceous. All of these are in a high cut east of the dam."—note sent in by James Allen (Allen's Minerals), 322 W. 23rd St., So. Sioux City, Nebr.

TENNESSEE—"I have found a field of about 3 or 4 acres covered with a curious looking flint. I don't know what it is so I'm sending you a sample. This is found in the 13th District of Greeneville (Greene Co.), Tenn. People call this the Devil's Rock."—item sent in by James R. Broyles, c/o W.C. Baxley, Rt. 5, Greeneville, Tenn.

The specimen received is a dark gray 4 x 4 inch chert showing many ripple marks. As the ripple marks are outlined in light brown, and they are wavy, they do make an attractive design against the dark gray chert—simulating designs seen on rugs.

The specimen is a fossiliferous chert—the fossils are the ancient ripple marks of the sea.

TEXAS—"Enclosed are a few lead "nuggets" that I mentioned in an earlier letter to you. These assay about 72% lead and contain a small amount of gold. They may be anglesites, but for the want of a proper identification, local rockhounds call them kiowaite."—item from Mary Weaver Hunt, Gen. Del., Mundy, Texas.

The "nuggets" turned out to be $\frac{1}{8}$ " loose, dull lead-gray cavernous xls of galena coated by gray to light brown earthy cerussite. Their locality is Kiowa Peak, Stonewall Co., Texas. Their name "kiowaite" is apparently from the locality, Kiowa Peak.

UTAH—"Topaz Mountain, Juab Co., Utah. The Salt Lake Societies have taken claims in this area so all may enjoy hunting for topaz. Please sign the register at the camp grounds. No water here.

"May be reached from Delta or Jerico from U.S. 6. These directions are from Jerico. Jerico is about 15 miles south of Eureka, Juab County. Approximately 11.1 miles west from Jerico take left fork, 40.5 miles take left fork, 2.7 miles (Joy road) take right fork. 1.1 miles take side road on right and take first left road and then keep on right trail 2 miles to camp. Topaz everywhere, but small. Ahead and to the right under the saddle usual hunting area."—Courtesy of Ken Stewart's Gem Shop, 37 South West Temple, Salt Lake City, Utah.

VERMONT—Milton E. Ailes, Box 36, West Danville, Vt., found some large ($2\frac{1}{2}$ x 5 inches) green epidote pebbles that were nicely water worn. Some of the pebbles showed tiny black magnetite grains. The locality is a brook bed in Danville, Caledonia Co., Vt.

VIRGINIA—Some few months ago we received from Bill Carter, 1524 Wellsley Ave., N.W., Roanoke, Va., a very nice aragonite (flos. ferri). It was brownish in color and 2 x 3 inches in size.

"This aragonite was formed at water level of pool. No water now in pool. Looks like fern leaf.

"From Liberty limestone Rock Quarry, Buchanan (Botetourt Co.), Va."—on label.

WASHINGTON—At the fluorite mine, 2 miles from Keller, Ferry Co., Wash.,

fine specimens of beautiful green fluorite is available which not only is fl. bright blue but can also be cut and polished.

WEST VIRGINIA—In the ceiling of Haynes Cave, Monroe Co., W. Va. (2 miles north of New Lebanon Church), vugs are found. These are small egg-shaped hollows averaging one to two inches in size, bordering by a brown casing and lined with well-developed crystals of clear, dog-tooth calcite.

WISCONSIN—Beautiful xls of colorless calcite occur in vugs in the limestone at the lead mines in and around Mineral Point, Iowa Co., Wisc.

WYOMING—A beautiful amber-yellow 2 inch long loose calcite xl showing phantoms was sent in recently by Mrs. Chas. Swinney, Box 652, Casper, Wyo.

"Rare, lovely phantom calcite crystal. Sizes range from $\frac{1}{2}$ lb. to $1\frac{1}{2}$ lbs. Found in Natrona County near Casper, Wyo."—on label.

ALASKA—Chrysocolla, in beautiful green botryoidal masses, has been found in the copper mines on Copper Mountain, Sulzer, Prince of Wales Island, Alaska.

AUSTRALIA—Two beautiful xled gold specimens, each mounted in a plastic box, were recently donated, one to the Editor and the other to Mr. James

Bourne, the Advertising Manager, of R&M, by Mrs. Lottie Shipley Rohde, of Shipley's Mineral House, Gem Village, Bayfield, Colo.

"The xled gold is from an old collection of wire and xled gold from Australia. This beautiful material was mined many years ago and we purchased a large portion of the collection. We have pieces ranging from small 50¢ wires up to \$95. Many pieces show the octahedral crystal faces, even a few individual octahedra.

"The collection was brought together by an Englishman and was first shown to the public at a British Empire Fair where it won first prize.

"Gold was mined near Adelaide, South Australia, between 1870-1880."—letter from Mrs. Rohde.

MEXICO—"We have just returned from a buying trip in the Southwest U.S. and Mexico. We are very pleased with the materials we were able to return with and the sources of replenishment we were able to make.

"It is our plan to specialize in materials of the Southwest and Mexico, later on other materials will be added. It is our honest desire to offer collectors only the best obtainable and we will refuse any shipment that does not meet our approval.

"We are preparing to offer our findings to the collector and our first ad is herewith enclosed.

"We are sending under separate package a sample of the azurite of the San Luis Potosi, Mexico, area. We believe it to be the best we encountered in our entire trip. This material we have in many sizes, from the thumbnail and other size presented to you to a mass of 7 x 4 x $2\frac{1}{2}$ inches."—letter dated Dec. 29, 1958, from Myron W. Hornby (Tri-State Rock Shop), 1308 Country Club Drive, Sidney, Nebr.

The specimen received and it is the finest azurite we have seen in the last 25 years. Beautifully xled, deep azure blue gemmy xls—many of the tiny xls

adhering to the large ones are ideal for micro-mounts.

Minerals in Puerto Rico

Quite a number of readers have written in inquiring about minerals of Puerto Rico. These readers are planning a visit to this island in the Carribean and want to do some collectng while there.

A 5-page article, "Minerals of Puerto Rico," by Horatio C. Ray, appeared in Oct. 1941, R&M. This article not only described quite a number of minerals with their localities but a large folded map of the island is enclosed. This issue is still available—price 30¢.

Has many specimens to trade!

Editor R&M:

Please enter my name in the Visiting Rockhounds Welcome section. Have many specimens to give and trade plus field trip information.

Clyde D. Thomas
853-57th St., N.W.
Albuquerque, N. Mex.

We love to be bothered!

Editor R&M:

Like bread and butter, crystals and matrix, your magazine and collecting go together. Therefore I must bother you once again to renew my subscription.

Richard C. Johndy
Cascade Road
Lake Placid, N.Y.

3 Generations subscribe for R&M!

Editor R&M:

Enclosed please find \$3 cash for a one year subscription to R&M for my son—Wm. G. Garrett, Jr., 203 Tapawingo Rd., Vienna, Va.

My father, Frank W. Garrett, has been a subscriber of R&M for many years, I have recently subscribed, and now my son is on your list—thus you have 3 generations subscribing for R&M.

Wm. G. Garrett
"E" DIV
USS Leyte (CVS-32)
FPO, New York, N.Y.

(Editor's Note: We have a few subscribers who have been with us regularly since the first issue of R&M made its appearance, in September 1926, but to our knowledge the Garretts are the first and only 3 generations to subscribe).

SCOTLAND—Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland, has been on the sick list but he is up and around although he has to take things easy. Here is his letter, dated Jan. 20, 1959:

"I am still ill but I manage to get out for an hour or so each day. I have been ill so long that I'm wondering if I will ever get better. The trouble is the heart.

"I heard from Harry Scott that they had a get-together in Edinburgh to promote a lapidary Society in that city and that they had more applications than the proposers could handle. Good luck to them. I tried to start a society here in Glasgow in 1952 or 1953 but couldn't get enough members to take an interest and so let the matter lapse. Since then a lot of folks here have been getting interested in the hobby (all using ancient methods such as mud saws, etc.—one fellow I know collects agates and makes all his cabochons by hand).

"It is time we made another try at it. As a committee member of the Geological Society I tried to get a proposal for a small workshop put forward but I fell ill two days before the meeting took place. I haven't heard how it turned out but—the officials in charge all seemed to be keen enough."

SPAIN—Just as we were going to press, the following letter, dated Feb. 7, 1959, arrived from Juan Montal, Plaza Sagrado Corazon 1, Vilafranca del Panades, Spain. It reads:

"Next Monday I start on a long trip to western Spain. I will visit the citrine quartz mines, cassiterite, wolframite and scheelite deposits, also uranium occurrences. I will try to send you samples of what I collect, notes and pictures."

Rocky Mt. Federation meets April 24-26, 1959 at Wichita, Kans.

Friendly hospitality to visiting rockhounds will be the keynote of the ROCKHOUND RENDEZVOUS, name chosen for the joint convention and show of the Rocky Mountain Federation of Mineralogical Societies and the Wichita Gem and Mineral society. The Kansas National Guard Armory at 3617 South Seneca, Wichita, Kansas, will be the scene of the three day event—April 24, 25 and 26, 1959.

A Federation Center will be set up in a room just off the display floor; there members of Federation societies may rest and chat. A message and address exchange will be maintained, as well as a housing bureau. Home-cooked food will be available at the Armory all three days. Free parking is just outside. Free camping grounds for visitors are being provided at the west edge of Wichita.

Business meetings of Federation groups will be interspersed with a program of lectures and field tips. In addition to the Federation competition, there will be numerous non-competitive and special exhibits. Working lapidary, radioactivity, and fluorescent displays are planned. Selected dealers will be on hand.

Outstanding lecturers have been obtained. Mary Frances Berkholz, Palmdale, Calif., field trip editor of *Gems and Minerals* magazine, will speak on the topic, "The Field Trip Program." Dr. Robert Berg, head of the geology department of the University of Wichita, will speak; his subject, "Geology of the Tri-State Mining District." A micromount symposium will be conducted by Arthur L. Flagg, curator of the state mineral museum, Phoenix, Arizona. Dr. Kenneth E. Rose, chairman of the department of mining and metallurgical engineering, University of Kansas, will be a speaker. His lecture, "Crystal Gazing," accompanies the projection on a screen by Rayoscope of the actual growth of microscopic crystals of minerals and chemical compounds. In color, the crystals grow like magic before your eyes. In another talk, illustrated with slides, Mrs. Berkholz will describe the Mojave desert of California.

Kansas gems, minerals, fossils, and meteorites will be featured in a special exhibit. A map of Kansas, in which the counties are made of polished Kansas gemstones, will be shown. It was made cooperatively by 35 Wichita members. Kansas is world-famous for the beautiful crystals of calcite, galena, sphalerite, marcasite, and dolomite

which come from the tri-state lead and zinc mining district of southeastern Kansas, southwestern Missouri, and northeastern Oklahoma. Kansas is also world-famous for the magnificent reptilian fossils found in Cretaceous chalk beds of its western counties. Some of the best of these may be seen in the Forsyth Museum on the campus of Fort Hays State College at Hays. Many meteorites have been found in Kansas. H. O. Stockwell, Hutchinson, specialist in meteorites, will show a sampling from well-known Kansas falls. Travelers to Wichita should stop at Greensburg, Kansas, both to see the world's largest hand-dug well and to see in the well museum the pallasite meteorite, largest one of its kind so far discovered. This meteorite was found on the Ellis Peck farm east of Greensburg by Mr. Stockwell.

Among many special exhibits will be the famed dinner set fashioned from Death Valley onyx, belonging to Walt Pilkington of Hesperia, California; the Anthony and Mary Francis Berkholz collection of precious opal; rare Crestmore and Magnet Cove minerals, shown by Elmer Banion of Topeka, Kansas; a collection of 19 art objects carved from semi-precious stones in China and Japan, displayed by Mrs. Frank Ulrey, Topeka, and faceted gems from all over the world, shown by Brace Helfrich, Wichita.

A pre-convention field trip will be a tour of the underground workings of the Carey Salt Company rock salt mine in Hutchinson, Kansas. The Carey company is making special arrangements for Federation visitors; literature and halite crystal specimens will be presented, and a member of management will give a short talk in the mine. This is a clean, dry trip, requiring no special clothing or preparation. This trip will be on Thursday morning, April 23; all persons are to go direct to Hutchinson and meet at the mine office by 9:00 a.m. for registration. The tour will begin at 9:30 a.m. and will be over before noon. Visitors will be met at the mine office by Wichita members.

On Sunday, April 25, the Federation visitors will meet at 7:30 a.m. on the armory lot for a trip to a quarry 90 miles from Wichita. This place was selected because of the variety and beauty of the mineral specimens, the abundant micromount possibilities, the presence of interesting fossils, and the inexhaustibility of the location. Special blasting will be done by the owner.

Micromount material available includes pink barite, iridescent chalcopyrite, marcasite and calcite. Cabinet specimens of clear calcite on iridescent calcite and various multiple depositions of minerals are to be had.

Post-convention field trips are also planned Monday morning at 9:30 o'clock a trip will leave the armory lot to visit fossil and geode locations in central Kansas. This trip

will end at Ottawa. On Tuesday morning, beginning at 8:00 o'clock, the group will be guests of Dr. A. C. Carpenter, Ottawa, at his home at 304 East Eleventh. They will visit his home museum and later go to several locations where fine plant fossils may be collected. These include fern and calamite stems and leaves. Other trips may be announced later.

Opal pseudo after asbestos from Arizona

John Duber, proprietor of Copper City Rock Shop, 526 S. 3rd St., Globe, Ariz., sent R&M some very interesting specimens—the first of their kind we ever saw—opal pseudomorph after chrysotile asbestos. There were seven specimens in the lot, one was a green common opal, another a mottled brown, red and white common opal, while the remaining five were all opal pseudomorph after chrysotile asbestos. The pseudos are dark red, dark brown, and light brown in color, two of the light brown show the transition of the original soft white fibrous asbestos into the hard, massive compact-fibrous light brown opal. White botryoidal chalcedony (fl. green) encrusts both specimens which show the transition.

In the specimens examined the asbestos originally formed $\frac{1}{4}$ inch parallel veins in serpentine. Thin bands $\frac{1}{2}$ inch thick of the former serpentine have also opalized—in one specimen it is cream colored in another dark red.

Thus we have specimens of the original asbestos veins in serpentine and now both completely opalized—the opalized compact-fibrous veins stand out distinctly against the massive opalized serpentine. All specimens are approximately 2×3 inches in size and attractive.

In his letter dated Aug. 30, 1958, Mr. Duber writes:

"I will try to supply you with some information on the material (the pseudos). It is mined along with the soft fiber asbestos. It occurs in what they call the rolls or rather faulting plains. At one time a lot of hot water came through. The opalized asbestos occurs in the water course.

"The mine (asbestos) is almost 45 miles east of Globe, Arizona, on the Apache Indian Reservation in Bear Canyon. The name of the mine is the Blue Mule. The find is about two months old. I don't claim any credit for the find. You know how a rock hound and dealer are. I went out to buy some fiber specimens and saw this opalized asbestos on the dump—the boys working the mine did not care about it. I realized it was a rare find and would be a collector's item. I have about 4,000 lbs. of this opalized asbestos on hand, some of it is good cutting material, takes a fine polish and makes very nice slabs.

"We are going to call this material Apache Opal."

Another letter from Mr. Duber, dated Jan. 7, 1959, reads:

"I now possess only a limited supply of the opalized asbestos and no more is to be had at the mine. It has been a very hot item for me and my stock is low.

"I would like to see every rock hound in the country have a slab of it—if they like something different. The opalized asbestos comes in golden, golden yellow, brown, cream, some white and some mixed, also dark green colors. The mine is in Gila County, Arizona."

This opalized asbestos is a most interesting pseudo and collectors are urged to obtain specimens while the supply is still available. See Mr. Duber's ad in this issue.

The common opal mentioned above, also comes from the Blue Mule mine.

P. Zodac



THE SAND COLLECTOR

CONDUCTED BY PETER ZODAC
PEEKSKILL, N. Y.

Lava sand from Red Mt., Ariz.

This is a medium grained, dark brown sand consisting chiefly of dark brown cellular lava with minor amounts of black obsidian, green gemmy olivine, black magnetite, and colorless quartz.

"Sand from stream bed in heart of volcanic Red Mountain, Coconino Co., Ariz. (north central Arizona, south of Grand Canyon)."—on label of sample which was sent in by Mrs. Irene Barber, Rt. 9, Box 907, Tucson, Ariz. (See World News under Arizona in Jan.-Feb., 1959, issue, p. 5.)

Mica sand from Indio, Calif.

We are indebted to E.M. Graf, P.O. Box 1432, Paterson, N.J., for this interesting sand sample which is a medium grained, gray sand. It consists chiefly of mica (silvery muscovite and bronzy biotite) with some smoky quartz and black magnetite.

"Sand from fields of date farms near Indio (Riverside Co.), Calif. Date and orange groves are in this soil."—on label.

Ilmenite sand from Broadkill Beach, Del.

From Broadkill Beach on Delaware Bay, Sussex Co., Del., we have a sand sample that was collected for us by Bob and Hazel Reynolds, Stocksedale Road, Kingsville, Md.

The sample is a fine grained, black sand consisting chiefly of black lustrous ilmenite with minor amounts of black lustrous magnetite and colorless quartz.

Quartz sands from Jefferson, Iowa

"Under separate cover am mailing you 3 different colors of sand which I would

like for you to give us identification. This sand was taken from the old glacial drift which is located in N/W Greene County at Jefferson, Iowa. All 3 sands were taken within 5 ft. of each other.

"About a mile from where these sands are located a crew making a road cut for highway, at about 90 to 100 ft. down ran into a buried forest (trees were still standing) of the fir type. The trees (not petrified) were water soaked which on drying fell to pieces.

"I would like to hear from some one in Virginia, Maine, or Massachusetts who may have some Fairy Crosses (stauroilite xls) for sale."—letter dated April 15, 1958, from Raymond Lakey, 503 N. Maple St., Jefferson, Iowa.

All 3 samples are fine grained quartz sands and each is colored by clay. No. 1 is gray sand (colorless quartz stained gray by gray clay); No. 2, is brown sand (colorless quartz stained brown by brown clay); No. 3 is red sand (colorless quartz stained red by red clay).

Quicksand from Bell Creek, Miss.

"In the package sent you are two bottles of sand, the brown bottle contains sand from a quicksand bog and the green bottle contains sand from only three feet away where the sand was firm. Both were taken at the same water level. It should be interesting to see if there is any pronounced difference in the sand in contents or structure. To my knowledge no one has ever perished in quicksand near here but stock sometimes do perish and are frequently dragged from the sands by their owners."—letter

from J.S. Locke, 39-48th St., Gulfport, Miss.

Both samples are practically all quartz (colorless, milky, smoky, some brown) with a very tiny amount of black magnetite. The only difference between the two is that the quicksand is a coarse gray sand, while the other is a fine grained gray sand. The sands come from Bell Creek, about 18 miles N/W of Gulfport, Harrison Co., Miss.

Zircon sand from Prince's Bay, N.Y.

Prince's Bay indents the southern coast of Staten Island (Richmond Co.), N.Y. From this bay we have a sand sample that was sent us by Wm. Whalen, 598 E. 138th St., Bronx 54, N.Y. The sample is a fine grained, black sand. It consists chiefly of black ilmenite, with smaller amounts of smoky quartz, pale brownish zircon (fl. orange), and still smaller amounts of green epidote, pinkish garnet and black magnetite.

"While zircon sand may be found in many places on Staten Island, the best deposit as per sample comes from Prince's Bay."—on label.

Lake sand from Hurdsfield, N.D.

"This sand is from a small lake that joins our farm. It comes from the east shore. The lake is on a county road in the southwest corner of Wells County, 12 miles S/W of Hurdsfield, N. D. The lake has no name."—on sample that was sent by Florence Newsom, Hurdsfield, N.D.

The sample is a medium grained, gray sand. It consists chiefly of quartz (colorless, smoky, brownish, reddish carnelian, gray to brown chalcedony) with smaller amounts of dark green (almost black) serpentine and gray limestone.

River sand from Stevens, S.D.

From the west bank of Big Sioux River, near the north edge of US 77, we have a sand sample which the conductor of this department personally collected on July 2, 1952. The sample is a dark gray, medium grained sand consisting almost entirely of quartz (colorless, smoky,

red jasper), with a tiny amount of black magnetite.

The locality is near Stevens, Union Co., in the extreme S/E tip of South Dakota. Big Sioux River divides South Dakota and Iowa.

Beach sand from Vaucluse, Australia

"I've sent you a packet of sand I gathered on the foreshore of one of our residential harbourside suburbs named Vaucluse. Actually only a tiny beach as most of that foreshore is a picturesque and rather precipitous headland of Triassic sandstone, hereabouts known as 'The Hawkesbury Sandstone.' The sand is very clean. The sedimentary series is of economic importance as being a good building stone, as containing a large number of coal seams and, recently, of revealing a fairly large content of natural gas, of which high hopes are entertained as it is so near this city."—letter dated May 5, 1958, from Kelvin Green, YMCA, Pitt St., Sydney, N.S.W., Australia.

The sample is a very fine grained, gray sand. It consists chiefly of colorless quartz, with some sea shells (white, brown, also blue—some of the white shells are pearly iridescent) and a few black grains of magnetite.

"From the waterfront of the harbour-side suburb of Vaucluse in Sydney Harbour. Sands shed from the Triassic sandstones of this region, which are very prominent on the foreshore."—on label.

Sydney, on the S/E coast of Australia, is on the Tasmanian Sea.

Beach sand from Valparaiso, Chile

Mr. & Mrs. Paul O. Drury, P.O. Box 1028, Las Vegas, Nev., recently returned home from a long trip that took them through the West Indies, South America, and Europe and from most of the countries visited we have sand samples which Mr. Drury personally collected for us. From Chile we have the following sand sample.

Medium grained, pale pinkish beach sand. It consists of pinkish feldspar, colorless to smoky quartz, and a little

black magnetite. The beach is on the Pacific Ocean.

"Beach sand from Vina del Mar, Valparaiso, Chile.

"The only legal table gambling in Chile is operated here at the Municipal Casino—annual profits of about 50 million pesos go to schools, hospitals, etc."—on label.

Dune sand from Bournemouth, England

Bournemouth (Hants) is located in southern England on the English Channel. It is a popular watering place and resort. Sand dunes are present near the beach and we have a sample that was collected for us by Wm. L. Hiss, 437 W. Boyd, Norman, Okla. The sample is a brown, fine grained sand consisting entirely of quartz (mostly brownish, some colorless).

"Enclosed is a sand sample that I have been meaning to get off for some time. I have another from Barmouth, Wales, but can't lay my hands on it now. Don't collect sands myself but note that a lot of people must so picked this up as a favor to you about a year and a half ago. The sand comes from the dunes at Bournemouth, England."—on label, dated July 23, 1958.

Glacial sand from Thule, Greenland

Greenland, the world's largest island, is in the north Atlantic to the N.E. of Canada. In the western part of Greenland, on Baffin Bay, is the little town of Thule and from Thule we have a sand sample that was collected for us by Bevan French, 98 Alexander Ave., Nutley 10, N.J.

The sample is a coarse-grained, brownish sand. It consists of quartz (chiefly smoky, some colorless), feldspar (white, red) black magnetite, some pinkish garnet and silvery muscovite. Rocks also are present such as gray conglomerate, pinkish granite, gray quartzite, gray schist, and black slate, also brownish clay.

"Glacial sand, Thule moraine, Greenland."—on label. See "Brief study of the geology of the Thule area, Greenland," by Bevan M. French, Nov-Dec 1958, R&M, pp. 492-493.

Shell sand from Callao, Peru

Callao, on the Pacific Ocean, is the chief port of Peru. From Callao we have a sand sample that was collected for us by Paul O. Drury, P.O. Box 1028, Las Vegas, Nev. (see Chile in this department).

The sample is a medium grained, gray sand peppered with black. It consists chiefly of sea shells (white, gray, pink), with small amounts of dull black magnetite and ilmenite. Fluoresces pale blue under short wave.

"Sand from La Arenilla Bay Beach, Callao, Peru."—on label.

Zircon sand from Clark AFB, Philippines

Clark Air Force Base is in the western part of Luzon, the largest and most important island in the Philippines. From the base we have a sand sample that was sent us by Woodley C. Blackwell Jr., P.O. Box 410, Red Bank, N.J.

The sample is a dark gray, coarse grained sand. It consists of dark gray lava, blackish magnetite, a little colorless quartz, and colorless zircon that fl. orange. Most of the zircon is in fairly large gemmy grains, some with squarish outlines.

"Sand from surface of ground."—on label.

Coral sand from Rose Island, Samoa

From the small uninhabited Rose Island (one of the Samoa Islands group that belongs to USA) we have a sand sample that was sent us by Max Haleck, Pago Pago, Tutuila, American Samoa.

The sample is a white, coarse grained sand. It consists chiefly of white coral (some pink also present), with a small amount of white sea shells. Most of the grains fl. pale lemon-yellow under the long wave.

"Rose Island is a very small uninhabited island, about 300-400 feet across with trees growing on about 50-60 feet high. It is the breeding place for thousands of sea birds. Besides the island with trees there is a sand bank where the sea gulls nest. The whole thing is surrounded by a big coral reef. Inside the lagoon there is plenty of fish and

also many sharks and giant clams. The island is about 150 miles east of Tutuila Island on which I live. The sand sent you came from the west end of Rose Island."—letter dated April 2, 1958, from Mr. Haleck.

Shell sand from Elie, Scotland

Elie, a small village in Fifeshire in eastern Scotland, is on the Firth of Forth. From Elie we have a sand sample that was sent us by Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland.

The sample is a medium grained, brown sand consisting chiefly of sea shells (chiefly brown, some blue, white, reddish) with some smoky quartz and dull black magnetite.

"Beach sand near Elie, Fifeshire, Scotland. We were searching for 'rubies' (pyrope garnet) on the beach but with no success."—on label.

River sand from Brunig Pass, Switzerland

From the Brunig Pass, Unterwalden in central Switzerland, we have a sand sample that was collected for us by Paul O. Drury, P.O. Box 1028, Las Vegas,

Nev. (See Chile, in this department.)

The sample is a medium grained, dark gray sand. It consists of quartz (chiefly smoky, some brownish, reddish) and dark gray limestone. A little blackish mica also present.

"From Aare River, Brunig Pass, between Lucerne and Interlaken, Switzerland."—on label.

Beach sand from Barmouth, Wales

Barmouth is a picturesque watering place situated at the mouth of the Maw. The bathing is excellent, and for magnificent scenery and healthy mountain air, Barmouth is not to be surpassed in all Wales.

From the beach we have a sand sample that was collected for us by William L. Hiss, 437 W. Boyd, Norman, Okla. (See England in this department).

The sample is a fine grained, gray sand. It consists of quartz (colorless, smoky), a tiny amount of black magnetite, and a lot of sea shells (brown, pink, white).

"Beach sand from the beach at Barmouth, Merioneth, North Wales."—on label.

Ice has its advantages!

To whom it may concern:

And especially to all mineral collectors, rockhounds and pebble pups, who hibernate during the cold wintery days patiently awaiting the nice warm balmy days of spring before thinking of going on a field trip, may I bring to light a point of information that may have been overlooked?

Many of us have visited collecting spots in the summer only to find, the best specimens are inaccessible to us because they are located in a wall across a pool of water. Knowing several spots like this, last week Frank Pagni and I decided to chance a mid-winter trip.

We went to Judd's Bridge, Conn, anticipating collecting some kyanite. To our surprise and dismay, surface water had flowed and frozen over the exact

spot we thought we were going to work, to a thickness of about two feet, covering the whole south wall of the pit. Fortunately on the west wall we were unhampered by this condition and using the ice floor, (which was also frozen about two feet thick), to our advantage along with a lot of hard work, we were rewarded with some fine crystals of blue kyanite.

I hope you can visualize this condition, and make good use of the above information on some of your own known locations which may have frozen, thereby giving you access to more and better minerals.

Happy Hunting!

G. R. Pugsley

Rockland Co. Mineral & Gem Society
New City, N. Y. 2/9/59



Mount Adams (12,307 feet), ancient volcanic peak in southwestern Washington, is the second highest peak in Washington. At and near the summit of this peak, sulphur and alum occur as cavity fillings, veinlets and cementing material in breccia and tuff.

INFORMATION WANTED BY READERS

Wax wanted for shining minerals!

I would like to know if there is any kind of wax you could put on minerals to keep them shiny?

Fred C. Fox
2309 Berkshire Dr.
Bridgeville, Pa.

Years ago miners at the iron mines in southeastern New York used to smear the smooth rounded surfaces of black turgite with shoe or stove polish and then rub briskly with a cloth to improve their appearance.

Dull surfaces of some crystals such as garnet, corundum, etc. can be greatly improved if given a thin coating of vaseline.

Have readers any other suggestions?

Who has rough foreign gemstones to trade?

Do you know of anyone interested in trading rough gemstones from Mexico, India, Canada, Russia, China and South America? I would be glad to hear from them.

Otto A. Neumann
9533 Woodlawn Dr.
Kalamazoo, Mich.

Wants to form a new club in Buffalo, N. Y.

I am starting a new club in Buffalo and wondered if you could find space in R&M to print the following:

HELP WANTED: to organize an active Buffalo Section of the Rocks and Minerals Association. Would like to hear from all interested Rockhounds. Write or call—

John Tutaro
221 Busti Ave.
Buffalo 1, N.Y.
phone—WA-1174

Many Rockhounds but no club!

Could you tell me if there is a mineral club in Suffolk County, N.Y.? Any rockhounds in this county?

Just setting up a little rock shop here and would like to know about other interested parties.

Mary H. Sandford
Box 792
Bridgehampton, L.I., N.Y.

California Flower stone

In the Nov-Dec 1958 R&M, on page 529 (Women's Corner) Mrs. Robert E. Foote, 484 Grove St., Woonsocket, R.I., inquired about a particular type of gem stone from California named the flower stone.

Two replies have been received. One was from Mrs. Dorothy McClure, 419 Sutter Ave., Modesto, Calif., who writes:

"Perhaps she means our orbicular jasper which is sometimes called the flower stone."

The second letter, from The Tailgater, P.O. Box 548, Palm Springs, Calif., reads:

"Even though we are dealers we always read R&M from cover to cover as we are interested in all of its articles and in so doing saw Mrs. Foote's request in regard to California's flower stone. These are chalcedony pebbles which are occasionally washed in onto a beach such as our moonstone beach at Redondo.

"These were a rarity even when it was possible to collect them in some quantity. We doubt very much if any have been found in the last 10 years, and any that have been found would be in private collections. Having been rockhounds before we became dealers we do have a few but they were never found in any quantity."

Beginner needs help!

Editor R&M:

Enclosed is my renewal for another year. This is my 2nd year and I just can't wait for an issue to arrive. I bet I've read last year's issues (6 copies) about 200 times.

Could you tell me of anyone at any place in my area where I could have my specimens identified? I have so many rocks laying in the yard and I don't know what most of them are—I hate to give up just because I can't identify them.

Denis McFadden
1106 Rear N. 41st St.
East St. Louis, Ill.

We hope a collector will pay Mr. McFadden a visit and identify some of the unknowns. He needs help.

THE MICRO-MOUNTER

Conducted by Neal Yedlin—129 Englewood Drive, New Haven, Conn.

We had the problem, as do so many of you, of discovering a satisfactory way of mounting single xls. We'd used a thin pointed balsa stick, with varied success. We'd placed the xl in a thin plastic capsule, and then cemented the capsule to the pedestal. Good, but the capsule took on a mottled sheen after a while which detracted from the appearance of the mount. Some collectors had small white porcelain bowls, in which they placed up to 20 xls, cemented a microscope slide cover glass over the top, confining the xls but permitting them to move about freely. This was good, but the standard bowls didn't fit into any conventional m/m box, which was a nuisance. We tried Scotch tape, gluing it to balsa wood, adhesive side up. Worked fine, but looked sloppy. Thumb tacks were used, but not successfully.

We'd tried and had seen squares of cardboard, white or black, (depending upon the color of the xls to be mounted,) pasted to a cork, and the xls cemented to the paper. This was a satisfactory method, and was made really good when a technique was evolved many years ago to standardize the mounts. (Wills in *ROCKS & MINERALS*, Dec. 1931. Reports available.)

To the age-old question, "What becomes of the hole when the doughnut is eaten?" may be added, "Of what use is the round plug after a hole has been punched in paper?" The answer is simple. "To a micro-mounter, of course." These bits of perfectly round paper are ideal for mounting tiny loose xls. Get a hand punch in the five and dime, or at your stationers. Use old business cards as stock, or a page of a photo album if you want black ones. Punch out a batch of plugs and you're ready for business. Paste 'em on pedestals, into m/m boxes, and you're set.

Now comes the time when you wish

you had three hands. First you select your xl, and position it. Then put a tiny flick of Duco cement in the center of the paper. Then, under the scope, pick up the xl with a delicate pair of tweezers and place it in the determined position on the cement. By this time you're cussing and moaning because the cement has dried, since it was such a small dab. Now, with your third hand, touch a toothpick to some acetone (lacquers thinner, nail polish remover, same stuff.) and then touch the cement. It will soften enough to grasp the xl and will dry in a few seconds.

For those of us who, unfortunately, have but two hands, there has to be another method or perhaps a slower drying cement. We've used, quite successfully, a casein cement put out by Borden, called "Elmers Glue-All". This is a white liquid, takes about 3 times as long as Duco to set, and dries *dull* and *clear*. Use a tiny spot of it and it remains liquid long enough for you to arrange the xl, pick it up, change your mind, stick it on, tilt it, change the tilt, take it off and mount a different one.

The cement comes in plastic bottles, with a long spout. Four ounces cost 59 cents. While in the liquid state it can be thinned with water. Once it dries it is relatively insoluble, and will hold forever. It will not adhere to plastics successfully, but to wood, paper and xls.

A refinement of the above technique is mentioned by Wills. Put a pin-hole in the center of the paper plug. Put a slight excess of cement on the pedestal. Push the plug onto the pedestal, forcing a bit of glue to ooze thru the hole. Fasten the xl to this.

Now, a request. If anyone has for sale, or knows of the availability of the following set of books at a reasonable price, we're in the market.

Goldschmidt—Atlas der Krystallformen.

18 volumes plus 3 volumes of index. This we really need.

We've recently had some correspondence with J. E. Byron, P. O. Box 844, Boulder, Colorado. Here is a man who has done a great deal to enhance the mineral collecting hobby. As a mining engineer, collector, and distributor of minerals he has maintained standards of quality worthy of emulation. He sent along his latest m/m price list, with 131 separate items. All moderately priced, and all of fine quality. Where else can you get such things as paravauxite, pascoite, zeunerite, neptunite, meneghinite, diaboileite and others at half a dollar each? Write for his list.

Last issue we'd mentioned the 'scope distributed by Unitron, 204 Milk St., Boston, Mass., and we'd indicated that it was an excellent instrument. For those who are interested in photomicrography, either by transmitted or reflected light this company markets model "A C A", at \$39.50. It can be used with standard monocular or vertical binocular instruments. The camera need not be a single lens reflex, for a telescopic eyepiece affords independent perfect focus. Nor does the lens have to be removed from the camera. Full simple instructions are enclosed. Your own 'scope and light, of course, are used, and exposure is still a critical thing. We've tried it and it works fine.

However, if you do have a single lens reflex camera all you need are a set of extension tubes and adapters—about \$15. This is what we normally use and focusing is done on the camera. But if you have any other type, either still or movie, then this "A C A" model is just the thing.

We drove to Baltimore recently, stopping to pick up Paul E. Desautels, associate curator of mineralogy and petrology at the Smithsonian, and attended a "workshop" meeting of the Baltimore club, held in one of the labs of the State Teachers College at Towson. We'd heard of these sessions and were curious. We came away impressed. This was no swap shop; no mere talk session. Altho exchanging and conversation were

integral parts of the meeting they were subordinate to the business at hand—the identifying and mounting of minerals.

Several large chunks of material were supplied by the members, and labeled as to locality only. Everyone had brought his 'scope. Two sets of Dana were available. The material was broken down and was up for "takes" (Not "grabs"). And so, between good mineral talk, and the acquisition and identification of new material, a wonderful time was had by all. Again we point out that there were no onlookers. Even the Micro-mounter got into the act.

Let us illustrate how Horace Greene and David Yaffe, working together, determined a tough one. The subject, a green xld mineral from Chuquicamata, Chile. Maybe brochantite, antlerite or atacamite. The xls were short, stubby prismatic. Let us remember that the identification was to be done visually. The xls showed definite orthorhombic symmetry. Brochantite, monoclinic, was thus early eliminated. Dana indicated that the atacamite was striated parallel to 001, and was sometimes twinned. No mention of either striations or twinning for antlerite. The observed xls were not twinned, not striated. Both cleaved perfectly on 010, so that was no test. However, atacamite has a long, thin prismatic habit, and the antlerite (says Dana,) short and stubby. The observed xls were short and stubby. This evidence, coupled with the recent reports that most of the material from the locality was antlerite and not atacamite, resolved the problem.

Thus by a process of examination and deduction a reasonable finding resulted. This was a stimulating experience, both for the researchers and for us, the observer. We are positive that the collectors will never forget these 3 minerals, and that they will never have trouble with them again.

This was a revealing evening. It proved that every collector, either of cabinet specimens or micro-mounts, could do a very satisfactory job of identification. It proved, too, that his knowledge of minerals would never get out

of the quartz, beryl, mica stage unless he obtained, and *used*, repeat, *used* a good mineral reference book. This then, is our mineral crusade for 1959: Buy and use a mineral reference book.

Dr. Paul Halter, of Arlington, Va., came up with a micro-mount Christmas conversation piece. At a club meeting he put a glass bowl on the table, put a sheet of copper (which had been cut into strips and the strips bent to simulate the branches of a tree) on a weighted

base standing upright in the bowl. Then he poured the bowl full of silver nitrate solution. An electrolytic action began, and by the end of the meeting the copper was coated with beautiful silver xls—a magnificent miniature Christmas tree! We poured off the liquid, let the set-up dry, and scraped off thousands of gleaming microscopic silver xls. Try this at dinner next December. Or at your Christmas meeting. It will add to the festivities.

BUY AND USE A GOOD MINERAL BOOK

There are thousands of mineral collectors to-day who profess an intense interest in the hobby and are active in going into the field and collecting, *but who do not own a good mineral reference book*. We have encountered members of the clan on rock piles, mine adits, at dealers and at conventions. Occasionally some enthuse over a particular specimen, noting its unusual form, association, etc. We glow with satisfaction when we encounter this, for it indicates that the collector has done research. *He has looked it up in a mineral book.*

But too many of the hobby's participants are not true collectors. They are "gatherers", for many are indiscriminate in their choice of material and in many cases do not become aware of the identity of such material until someone comes along and names it. *They do not own and use a good mineral book.*

In the absence of mineral courses and mineral identification programs on television it behooves the earth science hobbyist to begin reading again. Any good reference book on minerals, and there are many available.

We suggest that you get one above your normal reading range rather than one below. The book is not for casual reading. It is a reference work. It should have tables for identification, based, primarily, on mineral characteristics which can be determined visually, such as hardness, cleavage, lustre, crystallization, color, etc., tho not necessarily

in that order. Refractive index, specific gravity, wet tests etc. are not "field tests" and should be the end members of the series, altho these are most important in final determinations. We personally rely on Dana's System, and while about half of the data recorded is not readily understood, nevertheless the voluminous and complete information derived from the half we do understand is usually sufficient to clue us to the species identification.

The experiences of the members of the Baltimore Society as stated in the column of the Micro-mounter in this issue will illustrate the force of our observations herein. It holds good in sports. It holds good in mineralogy. "You can't tell the players without a scorecard!"

Hammers, sledges, chisels, magnifying glasses and soap and water are all tools essential to good collecting. But more important as a basic tool is a good mineral reference book.

And so we set up a crusade. *Buy and USE a good mineral book.*

Neal Yedlin

Wants help on the White Mts.!

Editor R&M:

Would you insert this note in R&M?

I am going on a trip to the White Mts. of New Hampshire in June and I would like to hear from anyone who knows of some good localities to visit.

Emery A. St. Cyr
16 N. Holden St.
North Adams, Mass.

THE AMATEUR LAPIDARY

Conducted by Captain George W. Owens

Hq. Sq. 384th Bombardment Wing, Little Rock Air Force Base, Jacksonville, Arkansas

Amateur and professional lapidaries are cordially invited to submit contributions and so make this department of interest to all

THE ART OF A COLLECTION

Many thousands of words have been written concerning collections in general. Pliny had a few choice words on the subject as hobbies were well known even then; however, it has remained for us Americans to really go all out on the subject. Buttons, beads, thimbles, matchbooks, McGuffey's Readers, badges with cute sayings such as "Chicken Inspector" or "O U Kid", early glass, late glass, China dogs, cats, figures, stamps, coins, string, aged automobiles, and even kitchen sinks not to mention a once practicable type of bedroom jar have caught the eye of collecting Americans. These many and sundry articles are literally dragged in from the four corners of the world and many of them repose in places of honor in the American home. We are all familiar with the expression "George Washington slept here" and most of us have "ohed" and "ahed" at typical period rooms in museums from Williamsburg to Monterey, yet how many of us have ever really tried to arrange our collections in such a manner as to achieve either a symbolic symbiosis with our own lives or with our surroundings? It is not uncommon to see a single family heirloom of definite antique standing surrounded in a sea of chrome furniture and modernistic art. Such a setting is as incongruous as a Field Marshal at a meeting of Hot-tents.

The same general comments apply to our gem collections. We have had the privilege of viewing gem collections contained in everything from worn-out pocketbooks, to the most ornate of French cabinets. Indeed, one proud soul, after carefully scanning the area to assure himself no one was in viewing distance, solemnly picked up a shot gun from be-

hind a door and poured several stones from the muzzle onto a table. Needless to say, each gem was well chipped and considerably battered.

Now we do not worship at the feet of the god "Etiquette" nor do we insist that each collection be neatly labeled and set in prim rows like tulips in a Victorian era flower bed but we would like to see some semblance of order in any grouping of gems or minerals. Some of the very best displays have achieved that casual look, but on closer examination, one finds that every consideration has been given to color harmony, size, fashion, and neatness. Regardless of "package" one can achieve neatness in placement of both gems and minerals. A very fine example of this type arrangement has been achieved by Mr. Sherman Sword of Hot Springs, Ark., whose small but attractive display in an antique china cabinet is a pleasure to view. While his collection consists mainly of fine quartz crystals, both outstanding singles and groups, he has several fine faceted gems and cabochons casually placed in appropriate places where they show to good advantage. It is possible for anyone to achieve a nice balance simply by adding a single stone or a picture. Such a fine display has been achieved by Mr. Jack Aberth of Copley, Ohio; while Jack has not been collecting for too long a period, his collection arrangement has all the earmarks of a veteran at the game. His work area layout and his display blend into a single satisfactory unit where many hours may be spent in complete comfort and pleasure.

Many clubs have arranged to obtain or build display cabinets for purposes of both public and private display. Such cabinets should be readily portable, well

lighted, (because nothing is more impossible than trying to view a nice specimen in an unlighted display), and of adequate size. When clubs build such cabinets, the advantages more than offset the trouble of forming the committee. etc. as they can obtain either a better price per unit by ordering more than one, or can purchase the materials, including lighting fixtures, at a discount and arrange to have a single standard type of cabinet. By having all cabinets uniform as to size and shape much better displays at shows can be arranged and each member can be assured that his gems and specimens will receive the same amount of attention as those of his competitor. A well planned cabinet will be one that has a maximum of display space, be well lighted, and of sufficient height to allow easy viewing. The Waddell Company makes an ideal cabinet for display purposes but the cost is excessive for most of us. Most of us would prefer to spend less on a cabinet and have the balance to devote to equipment or specimens. Several cabinet makers provide lines of showroom fixtures for drug and department stores. The next time the little woman drags you along on a shopping

spree, take special notice of the cases in the various stores. If you find one that is suitable for your purposes, the store manager will be happy to tell you where one like it can be bought. For those who are finicky to the point of needing special designs, then there is a cabinet maker near you who (for a fee) will be most happy to incorporate every whim of yours into your ideal cabinet.

While cabinets and their lighting are most important for public showings, displays in the home are limited to space available as well as artistic taste. We have had a number of fine specimens and a bountiful amount of cabochons packed away for lack of space and also because they simply wouldn't "go" with the present display of faceted items, cabs, and spheres.

To each his own, in this respect, and what appeals to one may not to the next. But in all events: Please keep the display CLEAN. Nothing is more in poor taste than a display covered with a quarter-inch of dust. A clean display, well lighted, in any sort of a suitable cabinet is most pleasing and cannot fail to cause favorable comment. Is your collection ready for viewing?

COLLECTOR'S KINKS

Collectors are cordially invited to submit notes from their experiences and so make this department of interest to all.

Store cabinets for displays

I would like to advise readers of R&M that some old store display cabinets make excellent mineral cabinets. Recently I got a bargain in an electric shaver display case with glass shelves and built-in fluorescent lighting for \$5 from a local drug store where it was no longer needed. With a little paint and some wrought iron legs looks as good as some advertised for \$50 or more.

Readers should watch out for a store that is being remodeled or is moving into larger quarters. These stores usually dispose of obsolete furnishing. With a little work such cabinets can be made to look well in any modern living room.

Don Stanley
Dorchester St.
Gurnee, Ill.

Australian collector wants to correspond Editor R&M:

Reading one of your magazines recently, for the first time, the Collector's Corner seems an excellent idea. If you would include my name and address in one of your forthcoming issues I would be grateful, as it would be extremely interesting and beneficial to correspond with others of similar interests in other parts of the world.

We live on the Sapphire Fields in Central Queensland, my husband a miner, and with this in mind perhaps I could be of some interest to others.

Mrs. B. Gartrell
Rubyvale P.O.
Central Queensland
Australia

CURRENT EVENTS

of the

EASTERN FEDERATION OF MINERALOGICAL AND LAPIDARY SOCIETIES

PRESIDENT

Mrs. Elsie Kane White
3418 Flannery Lane
Baltimore 7, Md.

TREASURER

Sam Brown
40 Northview Ave.
Upper Montclair, N.J.

VICE-PRESIDENT

Dr. George F. Size
Box 236
Murphy, N.C.

EXECUTIVE VICE-PRESIDENT

Mrs. James M. Dearborn
146 Lincoln St.
Newton Highlands 61, Mass.

SECRETARY

Roy E. Clark
Box 607
Newport News, Va.

EASTERN SHOW

The Boston Mineral Club will be host to the 9th Annual Convention, Gem and Mineral Show of the Eastern Federation of Mineralogical and Lapidary Societies, in Boston, Mass., at the Sheraton-Plaza Hotel, on Thursday, Friday and Saturday, July 16, 17, and 18, 1959. Field trips will be scheduled from Sunday, July 19.

Mrs. James M. Dearborn, 146 Lincoln Street, Newton Highlands, 61, Mass., is General Chairman. Charter member of the Boston society, and only woman president in 22 years, Mrs. Dearborn is now Executive Vice-President of the Federation. All inquiries should be sent to her.

As this is the first Federation show ever to be held in New England, an overwhelming attendance is anticipated, located within easy reach of the bulk of Federation membership. The largest group of club and individual member exhibits is also expected, not only because of proximity, but the rapid increase in Federation membership as well, which has more than doubled in the last two years.

With New England a vacation area and Boston and surrounding localities rich in historical points of interest, many will make this a vacation event. The headquarters hotel is entirely air-conditioned, including the exhibition hall. There is ample parking facilities. The Harvard University, with its famous mineral museum, among the top 3 of the world, is nearby. There will be a specially conducted trip there.

Outstanding exhibits are invited and anyone interested in having a collection featured at this time should contact Mrs. Dearborn.

The Convention Committee promises a most interesting program of prominent

speakers, and special attractions which will include rare and unusual exhibits.

Surrounding clubs have offered cooperation in guiding field trips following the show to make the entire event more exciting.

Enthusiasm is running high for this affair, so watch for future details. Put these dates on your calendar now and start planning on a trip to Boston. There will be much more there than those famous Boston baked-beans!

WELCOME TO NEW MEMBERS

A hearty welcome is extended to these new member societies:

Keene Mineral Club, Keene, New Hampshire

Southeastern New Hampshire Mineral Club, Dover, New Hampshire

Louisville Craftsmen's Guild, Louisville, Kentucky

Etowah Hammerheads Rock Club, Etowah, Tennessee

Gem City Rocks and Minerals Club, Erie, Pennsylvania

TWO NEW FEDERATION PROGRAMS

Two new sets of colored slides have been added to the Federation programs which are for loan to member societies. One is the American Federation Show of 1958, taken by Dr. George F. Size, which consists of 50 slides.

The second, which has been donated by Dr. Size, consists of 60 slides entitled "A Field Trip Through the Mid-west", covering a field trip of over 2000 miles, showing sites and finds as well as points of interest. Our sincere thanks to Dr. Size for this generous contribution.

These can be borrowed through Mrs. Marguerite R. Collyer, Program Chairman, 49 Green Road, West Nyack, New York, merely

for the cost of return postage, plus careful handling.

WHAT GOES WITH OUR CLUBS

The Antrim Area Mineral Club, of New Hampshire, celebrated its first anniversary with a Christmas party in December, reporting a very successful first year. Members of this club come from many surrounding towns to attend meetings in winter months and through those parts of Spring when impassable roads are the order of the day. The Sampson Family attended all functions coming from almost 80 miles away.

An interesting and energetic schedule of meetings and trips are planned for the coming year, and visitors are welcome. James B. Moore, its president, announces his Mineral Barn will re-open the first of May with new and enlarged exhibits and visitors are welcome. The Monadnock Community College has announced a 15 week course entitled Introduction to Geology and Mineralogy, which will be taught by Mr. Moore.

The Danbury Mineralogical Society, of Connecticut, have started a study class one hour before the regular meeting begins. Ronald Januzzi, founder of this club, is the instructor. He has just published a new book called *The Minerals of Western Connecticut and Southeastern New York State*. Anyone interested might write to 83 Elm Street, Danbury. It sells for \$2.25.

The New York Mineralogical Society at their November meeting observed one minute of silence in honor of their former president, the late William B. Aitken.

This club will celebrate its 75th anniversary in 1961. Is there an older society in the Federation?

Victor Pribil gave an illuminating lecture on the Art of the Lapidary, accompanied by a film which showed the steps in cabochon and facet work; also the equipment which he designed.

Joe Rothstein invited the club to an auction being held by the Gem and Lapidary Society of New York.

The Geological Section of the Buffalo Society of Natural Sciences were scheduled to hear Mrs. Eleanor Pleasas talk on Niagara Falls, who has been interested in the subject for many years, in January. David E. Jensen, head of the Geology Division of Ward's Natural Science Establishment was the speaker at a dinner meeting in December. His subject was Mineral Structures. The lecture was illustrated with Mrs. Jensen's slides, demonstrating her unique

understanding of color and composition in mineral photography.

This society will hold its annual exhibit in March this year, covering a four week's period.

The Western South Carolina Gem and Mineral Society, of Greenville, were to have a program on "How to Have a Successful Field Trip," for January. They also scheduled a bus trip to the University of South Carolina Museum at Columbia, anticipating rock swapping enroute.

The Georgia Mineral Society recently heard Dr. Howard R. Cramer, Professor of Paleontology at Emory University, at Atlanta, formerly of Franklin and Marshall College of Lancaster, Pa., speaking on Mineralogy of Paleontology. They had Dr. Willard H. Grant of the Department of Geology talking on Families of Minerals at another meeting, and in January had a discussion on Tektites by George Bruce, illustrated by specimens he collected from practically all known localities, including Georgia. The Gem Club had an exhibition of its hand-wrought jewelry and stones, and announced lapidary classes were to be resumed in January in the Art Studio of the Druid Hills High School.

The Newark Mineralogical Society held their fourth annual dinner in December, with Mrs. Bareiss speaking on Guiana, with illustrating slides. There was also a mineral bazaar with sales, auction and swaps. Mr. Clifford Authes was to head the January program with "30 Days Around the West."

The Gem and Mineral Society of the Virginia Peninsula sponsor one of the most active Junior clubs in the East. Lt. Col. David W. Dick, formerly an active member of the Gem Cutters Guild of Baltimore, will supervise this group during 1959.

Mrs. Mercedes Halsey, editor of this society's monthly bulletin, reported seeing a very beautiful specimen of *Crystallized Turquoise* at the Smithsonian Institution, from Lynch Station, Virginia, reported the only place such a crystal is found. The donor of this crystal is found in the next paragraph. This editor also reports seeing a very lovely specimen of this mineral in a cabinet of Mrs. James M. Dearborn, of Massachusetts, Chairman of our 1959 show.

The Mineralogical Society of the District of Columbia was to view in January an enticing film entitled "Back of Beyond", a sound moving picture by Shell Oil Company, showing the geology and mineral resources of Australia's "outback" country or great interior plains where the hunt goes

on for oil and other minerals. Their annual banquet was being planned for February. In reporting newly acquired minerals at the Smithsonian, their bulletin states: "Our own Cedric Gleason is the donor of the rare and beautiful crystallized turquoise which he found near Lynch Station, Virginia", which is mentioned above.

The Rockland County Mineral and Gem Society inaugurated an Opportunity Night. All the lapidaries who have been hard at work all year have the opportunity of showing their work and putting it up for sale, at the November meeting, so that all fellow members who do not do this work have the opportunity of purchasing these items for Xmas gifts. Those attending the December dinner were given a nice mineral specimen, gift swapped, from the collection of their late president, William B. Aitken, which Mrs. Edna Aitken had set aside for them. A field trip by bus to Washington, D. C., is being considered for Cherry Blossom time (May) with a two-fold purpose; to see our National Capital, with a ride around the basin where the cherry blossoms bloom, then a visit to the Smithsonian, "the shrine of all rockhounds".

The Southern Appalachian Mineral Society of Asheville, N. C., announces with regret the passing of Mrs. Burnham S. Colburn, who died at her winter home at Ormond Beach, Florida, in January. Mr. Colburn, permanent Chairman of the Board of this club, is owner of the world's largest collection of hiddenite, now housed at the University of South Carolina, and he is known throughout the world for this outstanding collection. His permanent residence is 430 Vanderbilt Road, Biltmore Forest, N.C.

The Miami Mineral and Gem Society attended a meeting at the Lowe Art Gallery on the campus of the University of Miami, for the Preview of the Opening of the Proposed Jewel Room of the Gallery. In January they were planning a barbecue and considering plans to turn it into a combination barbecue and rock hunt in a neighboring rockpit.

Micro-Mounters—Take Note

Paul Yaffe, President of the *Baltimore Mineral Society*, whose members are enthusiastic micro-mounters, is chairman of a committee to work out more satisfactory means of showing micro-mounts for judging at our annual shows. This group, a leader in the micro-mount field, holds annual symposiums in Baltimore which are highly successful. So, if you are a micro-mounter, start planning an exhibit for Boston in July.

The Boston Mineral Club had Dr. Robert M. Garrels, Professor of Geology at Harvard, speak on Oxidized Copper Minerals in January, illustrated by kodachrome slides. Professor Cornelius S. Hurlbut, Ph.D. of the Mineralogical Department of Harvard was scheduled to speak on Rare Element Minerals in February. Meeting in the Geological Lecture Room at Harvard University, Dr. Frondel, the curator, graciously promised to have the Geological Museum as well as the Mineralogical Museum open. There are several new interesting dioramas—Yosemite Park, Crater Lake, Yellowstone Park, etc.

The Gemcrafters of Miami carried this item recently in a club bulletin, from the Austin Daily Herald via "Achates": "The date of Noah's Flood is still a mystery. That is the conclusion of a team of German archaeologists who have completed two years of excavations in Southern Iraq. They have been working in Uruk, where nearly 5,000 years ago a sumerian epic poem was written describing a flood. The hero of the epic was Gilgamesh, a king who reigned in Uruk around 2800 B. C. Dr. Henrich Lenzen, head of the Bagdad German Archaeological Institute, says the date of Gilgamesh's reign has been fixed almost exactly, but the date of the flood remains a mystery. Lenzen explained that Gilgamesh, in the poem, actually hears of the flood from an ancestor".

So this is how it started. We learn from the *Monmouth Mineral and Gem Club Quarterly*, of New Jersey, that they had a member, Major Prueitt, who moved to Louisville and joined the *Louisville Craftsmen's Guild*. Miss Florence Hight of this society, and our historian, learned he had been working to persuade them to join the Eastern Federation. We can report he succeeded, for our membership chairman, Henry B. Graves, sent through their application, and they are now club No. 50 on our list. And now they can compete for regional honors with their hand-made jewelry and gemstones at Boston, and perhaps later try for national honors in our national shows. Congratulations to everyone!

The Gem Cutters Guild of Baltimore held their annual New Year's Party in January. One of their own members, Benjamin E. Schmidt, teacher at City College, spoke on Jewelry Making in February. Mr. Schmidt was the first to teach jewelry making and the lapidary art in the city schools. His subject covered sterling silver work, illustrated by beautiful pieces of his own mak-

ing; demonstration in making moulds from cuttle fish bone, and pouring silver into the moulds.

The Mineralogical Society of Pennsylvania will be host to the Pennsylvania Academy of Science for its annual Spring meeting in 1959. The Meeting will be held at the Spring Mountain House, Schwenksville, Montgomery County, Pa., on March 27 and 28. There will be a full schedule of papers given on a wide variety of subjects on Friday morning and afternoon and on Saturday evening. The banquet will be held on Friday night.

Plans are also being made for the anniversary dinner of the society to be held probably the last Saturday night in April, the month of its organization.

In December this club visited the Museum of Mineralogy and Paleontology at Princeton University and report as interesting an educational journey as anyone might desire. Numerous conducted tours were provided.

(Note: All club news *must* go to Current Events Editor—all subscriptions at club rate thru your club to Rocks and Minerals direct)

EASTERN FEDERATION HISTORY

Miss Florence M. Hight

Prior to 3rd Convention—continued from September 1957 Issue of Current Events

Four more Societies were affiliated with the Eastern Federation in the months following the Second Convention, namely, the Nutley Mineral Club, the Danbury Mineral Club, the New York Mineralogical Society and the New York Lapidary and Gem Society. Nineteen mineralogical groups now located along the Atlantic seaboard from Maine to Florida.

This third year the Eastern Federation out "to explode any remaining myths that Easterners are unfriendly mineral dabblers at best and that, as the youngest of the regional federations, should not be expected to have any convention know-how".

By combining the effort of the Metropolitan New Jersey area the New Jersey mineral clubs honored themselves and their mineral-rich home state by taking on the annual convention of the Eastern Federation for the second consecutive year.

With the experience gained in the very successful Newark Convention many of the committee chairmen were asked to continue.

However, the Federation officers who had guided our destiny thus far, Mr. Woodruff and Mr. Chromy, asked to be relieved of office and William B. Aitken, President of the North Jersey Mineralogical Society, better known as "Captain" or "Bill", became Federation president. The office of vice-president was taken over by Col. J. J. Livingston of the Mineralogical Society of the District of Columbia, replaced Mr. Chromy. Albert White continued as Ex-Vice-President and James H. Benn as treasurer. Historian was Miss Florence Hight of the North Jersey Mineralogical Society.

Mr. E. J. Talamini was appointed Show Chairman.

Mr. Aitken continued to handle the Commercial Exhibits.

Mr. Shaw took care of the Club exhibits.

Mr. Benn responsible for the Special Exhibit.

Other changes included Harold Gabriels for Convention Treasurer, and Russell DeRoo, arrangements.

It had become evident for sometime that display cases should be uniform in design. This year, as the committee knew of no available cases to rent, Mr. Shaw designed a model that could be taken apart and stored flat. The Convention Committee spent over \$400 for materials to have 22 cases constructed. Several societies wished to own their own, so six cases were sold at \$35 each. Later at the Annual Business meeting it was decided that the Convention Committee should be reimbursed and that the remaining cases become the property of the Federation until sold.

Innovations this year, included "The Quarry", a room where members may find rest, meet friends, swap yarns as well as rocks, ask questions, leave or pick up messages;—and a "Silent Auction".

The silent auction is a new twist for auction lovers. In this you look over the specimens offered and write your name and the price you'll pay on the paper beneath the ones you would like to own. Start low. For the rest of the day, every time you pass the table you look over the papers to see if someone has out-bid you. If so, write your name again and add another quarter. The last fellow on the list at the time designated as closing the auction wins. He pays his last bid and gets the specimen.



ROCKS AND MINERALS ASSOCIATION

(International)

NOTES & NEWS

Don Presher, Pres.

Box 29, Peekskill, N. Y.



Spring is just around the corner, that is, this is the time of the year that one offers this information at every opportune time. Just trying to reassure ourselves I guess. Looking out of my window and observing that the snow has started to fall again, leads me to believe that I have not done such a good job of convincing myself.

However, winter offers some advantage to the dyed in the wool collector as I discovered on a Sunday afternoon in January. I had been chomping at the bit to get outdoors and bang away at some rocks in their natural setting and as the afternoon was bright and sunny I decided to pay a visit to the pegmatite quarry at Bedford, N.Y.

I arrived at the quarry just ahead of several other cars which, as it turned out, contained other R&M Association members. This convinced me that if I was an odd ball, I certainly was not the only one. However after introductions, it turned out that they had a very logical reason for their visit at this time of the year. The water at the bottom of the old quarry was now frozen over and permitted inspection of the quarry walls which are not accessible at any other time.

I have some good news which I hope will multiply in the future. A fellow member, Ronald Januzzi, the proprietor of the Dinosaur Gift and Mineral Shop, Route 6, Brewster N.Y. has generously offered a 15% discount on all mineral specimens to R&M members. Presentation of your membership card will entitle you to this discount.

If you happen to be traveling to or from New England on U.S. 6, watch for the big dinosaur in front of his shop, between Brewster, N.Y. and Danbury, Conn. He offers a splendid variety of

mineral specimens at very reasonable rates.

He is also the author of a new book entitled, "A New Mineral and Locality Guide," which I recommend as being of great help to anyone interested in collecting in this general area. It contains maps and gives specific directions on how to reach many interesting localities. This book can be ordered by mail or bought at the Shop. Price is \$2.25 post-paid.

I would like to call your attention to an official R&MA emblem, offered by fellow member L. J. Duersmith. (see ad this issue). A scotchlite decal 3" x 3" that can be mounted on any smooth clean surface, such as bumpers, windows, doors, posts, etc. I have ordered two, which I intend to mount on the car bumpers, fore and aft, which can then be seen either coming or going. Identification is of prime importance if we are to have the privilege of helping others.

Mention of the R&MA Notes and News in your correspondence at any appropriate time can further the recognitions and respect for our organization. The requests for membership have been rolling in; I am sure that they will continue to do so. Your comments and criticism of this page will be appreciated, as I want it to be a source of information and of interest to you.

Don Presher

Please send a self-addressed stamped envelope when applying for membership card.

Mail to:

DON PRESHER, Pres., R&MA
Box 29, Peekskill, N.Y.

PUBLICATIONS RECENTLY RECEIVED

Dapples—Basic Geology for Science and Engineering.

By Edward C. Dapples, Professor of Geology, Northwestern University, 609 pp. illus. Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y.

Price \$9.50

A fundamental work for all interested in exploring the basic tenets of physical geology, this book establishes a clear understanding of geologic processes and sediment and rock types. It makes the reader familiar with the techniques of geologic interpretation and reconstruction of former geologic conditions.

Physical geology is presented in a series of chapters, each of which is dependent upon those preceding, to permit a careful and systematic development of the subject. A major theme of each chapter is: 1) observation and grouping of data; 2) classification of data into forms which permit expression by graphic and tabular representation in order to determine the existence of any measurable relationship between properties; and 3) interpretation of the relationships observed in order to formulate significant generalizations of the behavior of geologic processes.

A wealth of information is provided in tables, graphs, and charts. Emphasis throughout is on the development of principles suitable for application rather than the description of localities where specific conditions are known to occur.

Pryor—Economics for the Mineral Engineer.

By Edmund James Pryor. Reader in Mineral Dressing, Royal School of Mines, Imperial College of Science and Technology, London, England. 254 pp. Published by Pergamon Press, 122 E. 55th St., New York 22, N.Y.

Price \$6.00

In the field of mineral dressing economics, practice has always outstripped theory, and this has led to costly mistakes in those cases where fundamental principles have not received sufficient consideration, or where the alternatives have not been weighed before deciding on a method of treatment.

The engineer who has equipped himself with some understanding of economics has an advantage over one who forms his policies solely on technical considerations, and *Eco-*

nomics for the Mineral Engineer has been written primarily for students of mineral dressing whose specialized field of work connects with mine management and company administration.

Januzzi—Minerals of Western Connecticut and Southeastern New York State.

By Ronald Everett Januzzi, mineral collector, dealer, director and founder of the Danbury Mineralogical Society, 106 pp., 17 sketches and maps showing locality sites. Published by the Mineralogical Press, 83 Elm St., Danbury, Conn.

Price \$2.25

For the collector residing in western Connecticut or southeastern New York or anyone interested in the minerals of these two areas, Januzzi's new book is of the utmost importance. It is a most attractive publication, easy to handle and read, and so complete with maps and information on 200 minerals of the two areas that the edition will be sold out before many weeks go by. In addition to being a collector and dealer, Mr. Januzzi is one of America's best known guides who knows localities and their minerals and how to search for them.

Rush your order for this new book before the supply is exhausted!

Shaw—Radioactive Minerals Occurrences—Quebec.

By D.M. Shaw, 52 pp. 11 figs. (4 maps in color). Issued by the Department of Mines, Province of Quebec, Quebec, Canada.

Canada is famous for its radioactive minerals and this report describes many of the minerals and their localities where they occur in the Province of Quebec.

Fiji Islands—Annual Report—1957.

The Fiji Islands in the Pacific appear to be full of minerals—such as barite, copper, germanium, gold, silver, iron, zinc, etc. The report covers 18 pp. with a large map of the Islands.

Published by the Geological Survey, Suva, Fiji.

Bibliography and Index of Literature on Uranium and Thorium and Radioactive Occurrences in the United States. Parts 1-5.

The Geological Society of America has published as its Special Paper No. 67, "Bibliography and Index of Literature on

Uranium and Thorium and Radioactive Occurrences in the United States. Part 5: Connecticut, Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin," prepared by Margaret Cooper of the U.S. Geological Survey on behalf of the Division of Raw Materials of the U.S. Atomic Energy Commission, September 1958, 472 pages (paper cover), and priced at \$6.75 a copy.

This book contains a section on bibliography (26 pages), a gazetteer for the States (38 pages), a geographical index (243 pages), and a subject index (165 pages). Factually it is a key to the literature on deposits in which uranium, thorium, and radioactive minerals are found in the north-eastern United States. For many of the States there is also much detailed information in the indexes on the geology and the general mineralogy of the pegmatites, coal beds, sandstones, shales, beach sands, and other formations in which the uranium and thorium have been reported.

Parts 1 to 4 of this bibliography were prepared by Margaret Cooper in the Division of Raw Materials of the U.S. Atomic Energy Commission and published in the Bulletin of the Society. These sections, which also include a bibliography, gazetteer, geographical index, and subject index, with detailed geological information for each area covered, are available as reprints for public sale, as follows:

Part 1: Arizona, Nevada, and New Mexico.

February 1953, 38 pp. 25 cents

Part 2: California, Idaho, Montana, Oregon, Washington, and Wyoming. October 1953, 70 pp. 25 cents

Part 3: Colorado and Utah, June 1954, 124 pp. 50 cents

Part 4: Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas. March 1955, 70 pp. 50 cents

All five parts of the bibliography may be purchased from the Geological Society of America at the prices indicated above. Remittance must accompany orders, which should be sent to:

Geological Society of America
419 West 117 Street
New York 27, New York

"Maine Granite Quarries and Prospects"
(Minerals Resources Index #2)

This 8½" x 11" 50-page booklet contains information on the location and mineralogi-

cal description of the rock in more than 160 granite quarries or prospects which have been operated at one time or another in Maine. In addition, there is information on buildings, monuments, and other structures built with the granites from about 120 of the quarries. Forty two plates and a folded index map show locations in detail.

Price: \$0.97 plus 3¢ sales tax for in-state purchases.

Address orders to:

State Geologist
Department of Economic Development
State Office Building
Augusta, Maine

Payment in check or money order—payable to the Treasurer of the State of Maine—or cash, at the sender's risk. Postage stamps cannot be accepted in payment.

Victor—Gem Tumbling.

Victor Agate Shop, 1709 S. Cedar St., Spokane 41, Wash., have just released the 4th Edition of their popular Gem Tumbling. This new edition has some interesting material relative to tumble speed and size.

It is an attractive publication, easy to read, contains 54 pages. price \$2.00

Dealers Catalogs.

Scott Williams, 2346 S. Scottsdale Road, Scottsdale, Ariz., has issued a 5 page price list featuring some new attractive minerals which have been added to his huge stock.

Photo on the cover.

"I have a crystal of quartz about 3" long and ¾" thick. It had been broken during formation and had healed itself, which I believe is a real oddity in such crystals, so I am sending you a picture of it.

"I found this crystal at Lyndhurst, Ontario, Canada, about 35 miles north of Gananoque. Lyndhurst is an ideal place to find clear quartz crystal.

"We have a fair collecting district around here (Fort William and Port Arthur) for amethyst, agate, jasper and various minerals and crystals. The country is so large the big trouble is to get enough time to visit all the interesting places there are with collecting possibilities. Our club has had several field trips this summer and hope to have more before the snow flies."

D. H. Garratt
178 E. Brock St.
Fort William, Ont., Canada

WITH OUR ADVERTISERS

Conducted by James N. Bourne
c/o Rocks and Minerals. Box 29
Peekskill, N. Y.

Advertisers are cordially invited to submit News Items to this Department

A.G. Parser, Inc., 54 West 46th St., New York 36, N.Y., who advertise regularly in R&M and need no introduction to our readers, have recently been honored by an article in the *New York Times* as well as one by the *Chicago Tribune* and a further mention of their firm on a radio program.

We of ROCKS AND MINERALS are proud to extend our congratulations to the Parser's for the mentions thus received by press and radio as to their accomplishments as well as to their participation in the mineralogical field since 1880.

Donald Parser has returned this past December from a trip to gem producing areas abroad with new material. Your inquiries will be welcomed and a stop at 54 West 46th St., New York 36, N.Y. will enable you to see first hand much of the fine material to be had.

Just received an item from Prof. Wendell B. Johnson of the Gem and Rock Shop, P.O. Box 9921, Jackson 6, Miss., which we will pass along to our readers as follows:

"Beginning Feb. 2, 1959, I am giving a series of 10 lectures in the way of a non-credit course to amateurs, hobbyists, and others that are interested in the fundamentals of mineralogy.

"I expect a good turn-out. The people came to me and asked for this and I will oblige. More details later." Note: I'm sure the lectures will be popular as presented by Prof. Johnson and our thanks for the very nice selenite crystals sent to us and collected by the same Prof. Johnson in Saline Co., Kansas, last summer.

Bill and Alta Aulsebrook who have

conducted Hobby Haven in Evansville, Ind., for quite a few years are now moving their business to a new location in Arkansas. Bill will now be able to devote his full time to the Lapidary field after just retiring from 35 years of sales work with one of the country's major manufacturers of refrigeration and air conditioning items. We are pleased to print the following as received from Bill:

"The new location of Hobby Haven Lapidary is on Pretti Point, just off State Route 7 on the north shore of Lake Hamilton, just six miles south of Hot Springs, Ark. The shop will feature the lapidary equipment and specialties that have been advertised in our ads in R&M in the past, and will also carry a select stock of cutting materials from domestic and foreign sources.

"There are many good shops in the area who ably serve collectors in crystals and other local specimens, so the shop will cater to the needs of the serious gem cutter.

"We have traveled into 48 of the 49 states (ain't seen Alaska) and if Arkansas isn't the place to have fun with rocks, and to fish and enjoy life—then we have overlooked something. The new Hobby Haven location is completely surrounded with high class resort cottages, affording every facility for relaxation and enjoyment. When you get on State Route 7 (which joins the Diamond Mine at Murfreesboro with the collecting area of Magnet Cove) you just turn west along the north shore of Lake Hamilton, where the signs guide you to Pretti Point. We are "Just a whoop and a holler from that point." Our best wishes go to the Aulsebrook's.

A nice specimen of wire gold was sent to us by Richard Buhlis, Mgr. of Canon City Minerals Corp., Canon City, Colo. Thank you kindly, Richard. A note from Mr. Buhlis reads:

"We extend an invitation to all rockhounds to visit (Free) our gold mine on the Arkansas River, U.S. Highway #24, in the Rocky Mountains, 14 miles south of Leadville, Colo, in celebration of the 1959 Colorado Centennial Gold Rush." Note: I imagine quite a few of our readers will be out there visiting this year and among them may be Peter Zoda, our Editor, who was personally invited by Mr. Buhlis to come out this year.

We would like to make mention at this time of an item sent to us by Morris J. Elsing of the Collectors Shop, 95 Camino Espanol, Tucson, Ariz., who regularly advertises in R&M:

"Will supply plastic boxes (Ideal for Micromounts) to any place in the U.S. for \$13.50 for a carton of 10 boxes pp. and ins. direct from the factory. For more details look up my article in May-June 1958 issue of R&M.

Richard Smith of the Mineral Motel Rock Shop, Hawthorne, Nev., wishes to announce to our readers that he expects to move to a new location at Page, Ariz., sometime in April. We wish you well, Mr. Smith, and don't forget to drop us a line after you get situated there.

For those who would like some beautifully photographed postcards of minerals taken in color, for sending to friends and acquaintances, contact R. Pickens, 610 N. Martin, Waukegan, Ill. Mr. Pickens does wonderful work and price is reasonable as to fine quality workmanship offered. His display ad regarding color slides is run with each issue of R&M.

A. O. Henry, Proprietor of the Omaha Lapidary, 5620 Ohio St., Omaha 4, Nebraska, is advertising his "Rock Pol-

ishing Kit" for \$3.00 p.p. this issue of R&M. Mr. Henry relates:

"Kit contains seven genuine semi-precious gem rocks with shaping stone, dops, wax, candle, sandpaper, ring and other material and instructions for handling and use of kit.

"Ideal for Teen-Agers, Service men, Schools, etc. Also dealer inquiries invited." Note: the above "kit" should become very popular with the youngsters and grownups alike. Very nice.

We thank James L. Winder of The Prospectors, Rt. 1, Box 260A, Myrtle Creek, Ore., for several nice chips of good quality multi-sheen obsidian that is being offered in their classified ad of this issue along with plume agate, carnelian, wascoite, and thundereggs.

Some very nice specimens of "cats eye" wavellite, aegirite, yellow Turkey Fat smithsonite, all 2 x 2 inch size, was received from the Corbin's, Box 666, Yellville, Ark. These specimens were collected in Arkansas and similar material may be purchased via their classified ad this issue in R&M. Note: the Corbin's should well be proud of the many fine minerals they collect in their native Arkansas. We'd like to say hello to their little children (Lark, age 9 and Robin, age 3), the biggest little rockhounds in Arkansas.

Herbert E. Walters of Treasure Crafts 209-9th St., Ramona, Calif., advertising regularly in R&M, is at present, featuring some very nice Tumbled Cabochons and Baroques in his ads and some correspondence re: to same from Mr. Walters reads as follows:

"May we thank you for your tremendous response to our tumble polished cabochons and our gratitude too for your patience when we were sometimes slow in filling your orders. We have increased both our equipment and personnel to help speed our production and your orders.

"We feature baroques, highly pol-

ished, in small, medium, large, extra large sizes. All available at \$3.50 a pound. Include postage with your order." Note: Readers may acquire some good material as to above as we have been the recipient of some samples and note the material as very good.

Some very nice 2 x 2 inch specimens of green chert (Jasper) received from Richard K. Gilbert, Nor'East Rock Hobbies, 299 East St., Wrentham, Mass., advertising with us this issue as per our classified section. A word from Mr. Gilbert reads:

"You will note that by examining some of the specimens of green chert (Jasper) that we have sent you, that your readers would do well to state their preference when ordering as to banded, vari-colored or dendritic form as to their want. Dealers inquiries also invited." Note: Some good pieces may be had of the above material for one's collection or for cutting and polishing as you wish.

Louis Roth of Radiant Ultra Violet Products, 148-31 90th Avenue, Jamaica 35, L.I., N.Y., will soon feature some exciting new products via the display section of R&M in coming issues. Be on the lookout for them and meanwhile note his present ads now running for Radiant Ultra-Violet lamps and equipment.

In our "Surprise Packet" received from Capt. George W. Owens, 150 Ill. Drive, Jacksonville, Ark., we received a very nice faceted zircon and a very fine Mexican agate cabochon. This "Packet" is currently being advertised in our classified section. Readers may receive their "packet" by forwarding one dollar to Capt. Owens. Your money will be refunded if not satisfied. Capt. Owens has other ads running in R&M regularly, but we would like to refer back to our Nov-Dec issue, page 565, re: to a good buy as to Mother of Pearl carvings made in the Orient 100 years ago. Regular

price for same is \$10.00 each but Capt. Owens will sacrifice fifty of these rare and beautiful carvings for only six dollars each, postpaid. Make your inquiry now while there are still some to be had.

For Indian relics, antiques, guns etc., contact Heike's, Casa Blanca, Wenona, Ill. An item from Dr. Heike reads:

"See our vast collection started 40 years ago of Genuine Stone-Age Relics, Coins, Historical War Relics, Stamps, Jewelry and many other items. We are also able to serve the rockhound, lapidarist, paleobotanist, mineralogist, and fossiliferous collector. We have findings, baroques and cutting material. Send for our free circular and Qwuitscherbeller-aicken."

From R. D. Tweedie, 5643 Lone Pine Road, Sebastopol, Calif., we are in receipt of some very nice specimens of agatized-opalized wood baroques, multi-colored black, white, grey and very, very nice. These may be recut to fine cabs or pendants. Very good quality. Mr. Tweedie says:

"We are offering the above material for \$7.50 per pound, plus postage. Minimum order \$3.00. You will reorder when you see these."

From Myron W. Hornby of Tri-State Rock Shop, 1308 Country Club Dr., Sidney, Nebraska, we received some very nice specimens of Mexican azurite—the best we have seen in quite sometime. The Tri-State Rock Shop is featuring azurite and many other choice minerals of Mexico and our own Southwest in their display ad this issue. Here are a few: Desert roses, Texas; purple agate (banded) Mexico; lace agate, Mexico; wulfenite, New Mexico. The lace agate by the way is a very choice new variety (a nodule type). The purple agate and lace agate make good cutting material. We advise ordering some of this material while supply lasts.

AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES 1959 JUNIOR ESSAY CONTEST

Once again the American Federation of Mineralogical Societies is sponsoring a Junior essay Contest.

This year's subject is, "Advantages of Being a Rockhound." The contest is open to any boy or girl, 16 years of age or under as of June 30, 1959.

All juniors are urged to enter essays and try to win one of the U.S. Savings Bond or Cash Prizes. The complete Official Rules are given below.

Rules for American Federation 1959 Junior Essay Contest

1. Any boy or girl, 16 years of age or under as of June 30, 1959, is eligible to compete.

2. Each essay shall be entirely the work of the person entering the same.

3. The subject of the essay shall be: "The Advantages of Being a Rockhound," and shall be not more than 1,000 words.

4. Prizes will be awarded at the 1959 Convention of the American Federation at Portland, Oregon, over Labor Day weekend—September 5 through September 7, 1959. The prizes to be awarded are as follows:

First Place.....\$100.00 U. S. Savings Bond
Second Place...\$ 50.00 U. S. Savings Bond
Third Place....\$ 20.00 Cash
Fourth Place...\$ 10.00 Cash
Fifth Place.....\$ 10.00 Cash

5. Deadline for mailing entries will be midnight, June 30, 1959.

6. All entries are to be addressed:
Howell Lovell, Contest Chairman
1020 Russ Building
San Francisco 4, California

7. All manuscripts submitted will become the property of the American Federation of Mineralogical Societies, to be used in any manner they may see fit.

8. The decision of the judges shall be final.

We do a swell job!

Editor R&M:

Look forward to each issue of R&M. Seems once every two months is not often enough. You do a swell job with it—take it from an ex-editor and publisher of *Anglers Almanac*.

Jason G. Clark
West Cornwall, Conn.

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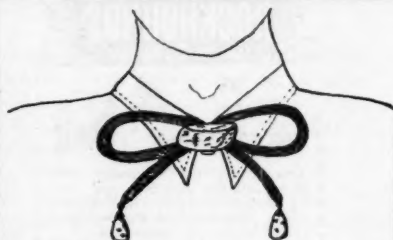
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